

AN APPROACH TO THE IDENTIFICATION OF
THE POTENTIAL EXECUTIVE

Thomas John Leshko

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THESIS

An Approach to the Identification of
the Potential Executive

by

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and
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June 1975

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the Potential Executive

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ABSTRACT

Selection of the best managerial personnel available their placement and optimum development are major goals of management. These goals are equally shared by industry and the federal government. This research effort undertakes a new and little studied approach to satisfying this need by developing a test instrument based upon situational decision opportunity alternatives. Executive capacity indicators were identified and hypothesis relating to executive capacity indicators were tested. A data base of executive success was established by responses from nearly 200 proven executives from industrial, federal, and military organizations. The populations were then combined and tested and compared with the opinions on executive success as expounded in current management literature. Analysis of the data and hypothesis tests showed that responses of the populations were statistically different from each other 54% of the time. When combined and compared to beliefs expressed by management literature, the responses were statistically different 92% of the time.

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I. INTRODUCTION

Selection of the best potential managerial personnel available, their placement and optimum development are major goals of management. There is an acute need for improved methods of assessing the actual performance of executives, for determining the potential ability of those being considered for managerial positions, and for appraising programs aimed at developing the skills, attitudes, and abilities needed in management [Assessing Managerial Potentials, 1958, p. iii].

A great deal of interest, in the recent past, has been directed toward defining and measuring the effective performance of managers [Bennett, 1959, p. 83, 99-100]. A similar interest has been shown in attempts to improve ways of predicting and developing future executive capacity, be it in the private, public, or military sectors [Korman, 1968].

Organizations, regardless of size or purpose, seek to acquire individuals with high executive potential to ensure quality replacements for the future. Within the executive arena, certain individuals have displayed the capacity to assume greater responsibilities, at different ages, and execute them effectively. Identification of executive capacity at an early age provides top management with many economies [Dooher and Marquis, 1952, p. 103; Uris, 1962, p. 91-116; Fülmer, 1974, p. 227-238 and Drucker, 1969, p. 280-290]. It appears to be universally agreed to, but no dominant method for appraising and evaluating such potential exists.

Organizations strive to employ managers whose personal philosophy and policy are identical or congruent with those of the organization [Litterer, 1973, p. 731-740]. The measure of effectiveness upon which executive's are appraised is evaluated in terms of performance. Performance today means to arrive, to perform, and to depart; it means compressing experience, movement around as well as up, management by objectives, project and task force management; it means lateral mobility, outspan positions, role reversal, tandem and dual assignments; and it means geographical and social mobility [Jennings, 1967, p. 96-97].

It is the objective of an organization to ensure that performance of its managers be consistent and competitive in the short and long term. In order to accomplish such an objective it becomes the task of top management to identify, as early as practical, those individuals who possess or appear to possess those productive qualities of a successful executive [Beach, 1970, p. 308-337].

A. THE IMPORTANCE OF EFFECTIVE EXECUTIVE SELECTION

Management faces the problem of identifying and employing personnel who have the greatest potential for becoming successful executives in their organization. Today there are many training and development programs for lower, middle and top management with the goal of increasing a person's management skills and efficiency. By scanning most any issue of the Wall Street Journal or professional management periodical becomes apparent that various levels of training and develo.

ment packages have been developed and are offered to satisfy this organizational need. Empirical experience of the author's reflect that most organizations they have encountered, engage in some kind of professional development program for various levels of management.

Research literature supports the notion that most organizations rely on many attitudinal and psychological devices and techniques for selecting individuals for various levels of management and/or management training [Dooher and Marquis, 1952, p. 21-39; McFarland, 1974, p. 460-480 and Bennett, 1959, p. 89]. Investigation of management texts and interviews reflects that no one single criteria is used alone in the selection process to predict executive potential. The author's are of the opinion that the existing battery of psychological tests which attempt to print a psychological/motivation profile of an individual, are not necessarily the best methods of identifying the individual with a high potential for management success.

The seminar held by the Foundation for Research on Human Behavior, "Assessing Managerial Potential" [Assessing Managerial Potential, 1958, p. 23]; the ongoing studies by Standard Oil Company of New Jersey [Assessing Managerial Potential, 1958, p. 23], as well as the situational approach employed by AT&T [Assessing Managerial Potential, 1958, p. 23] are but a few examples of recent research investigating different mediums to identify executive indicators. Limited research into the possibility of identifying indicators that

will predict executive success utilizing situational stimuli, has been undertaken. With the exception of Freeman and Motta, [1975] and Blake and Mouton [1969], the individual's capacity to respond to situational stimuli as predictors of executive capability has not been treated extensively. The authors worked with Freeman and Motta over a four and one-half month period during the conceptual phase of their study, using and expanding upon their concepts and hypotheses, then undertaking a planned program of hypothesis testing in order to identify important executive indicators.

B. POSSIBLE BENEFITS FROM IMPROVED POTENTIAL IDENTIFICATION

Identification of individuals at an early stage of employment, either at the time of hiring or at a lower management level, would provide the following possible benefits to an organization:

- A longer life span on the job for the more qualified executives.
- Improved or increased level of decision-making by executives of all echelons.
- Greater return on investment from personnel selection and development.
- Fewer passed over managers and lateral or dead end assignees.
- Better executives as a result of compressed experience.
- Reduction of the incidence where executive turn-over has exceeded development, i.e., repetitive mistakes being carried from job to job.
- Reduction of rate of turn-over, created by the present high rate of movement.
- Maintenance of a high degree of achievement and performance over the long term.

Information concerning one of the military's promotion systems reflects that the responsibilities of selection,

promotion and determining the "best fitted person" are identical to these faced by industry. It is, therefore, concluded that if these executive identification, selection, and promotion challenges can be identified in one sector other sectors will derive similar benefits.

C. OBJECTIVES

This thesis addresses the subject of attaining ever increasing executive competence by exploring the possibility that executive potential can be identified in an individual at an early age. Within this basic objective, the thesis attempts to contribute toward determining whether or not a model based on responses to situational stimuli can be used for the identification of the potential.

A basic procedural model for approaching the study includes the following steps:

1. A literature search to determine the contributions of others on the subject of executive identification, particularly using situational testing.
2. Isolation of specific executive capacity indicators.
3. Development of a testing instrument to determine response patterns of proven executives.
4. Administration of the instrument to successful executives.
5. Analysis of responses to the questions in the instrument to determine the validity of the situational stimuli as capacity indicators, and to establish an evaluation scale for responses.
6. Reconstruction of the instrument, directing it at a revised objective, namely: the identification of individuals in different age groups who most closely follow the response patterns of the proven executives.
7. Administration of the instrument to populations from different age groups.

8. Analysis of responses to provide individual evaluations.
9. Comparison of evaluations against individual performance at two, five, and ten year intervals.

D. SCOPE OF THIS THESIS

This thesis attempts to investigate the executive response patterns and provide a base upon which testing instruments can be devised to evaluate executive potential for those other than already proven executives. It thus encompasses steps 1 through 5 of the procedural model, with suggestions for continued research.

E. SOME BASIC HYPOTHESIS

The approach to identifying executive potential followed in this study requires the adoption of some basic hypotheses as follows:

1. Executive capacity indicators can be identified.
2. Executive capacity indicators can be measured utilizing the situational mode of testing.
3. Executive capacity indicators for different individuals are similar although executives operate within different circles.
4. Persons of similar executive capability react in the same or like fashion to a given decision--alternative opportunity.
5. Individuals of similar executive positions will select the decision alternative as predicted in management literature.
6. An informational gathering document (IGD) can be used to identify and validate capacity indicators.
7. Response patterns of executives can be used to evaluate executive potential by comparing responses of executives to those of aspiring executives.

Of the above, hypotheses 1, 2, 3, 4, 6 and 7 are fundamental for use in the study.

Hypothesis 5, that executives act as predicted in management literature, is useful only for determining an initial coding for response evaluation. If the hypothesis proves to be incorrect, alternate coding would be required. It also provides a base for response comparison.

II. METHODOLOGY

The study embraces six phases as follows:

- Phase I. Literature Search
- Phase II. Identification of Executive Capacity Indicators
- Phase III. Development of testing instrument
 - a. Develop a situational testing instrument.
 - b. Pre-test the instrument.
 - c. Modify the instrument to eliminate inappropriate questions, and restructure unclear ones.
- Phase IV. Data Gathering
 - a. Submit the instrument to individuals in top executive positions in the industrial, federal and military complex.
- Phase V. Analysis
 - a. Evaluate responses to determine relationship between populations.
 - b. Compare responses as suggested by management literature with those of the proven executives from the private, public and military sectors.
 - c. Interview a limited number of the respondents.
 - d. Determine an evaluative coding for responses to the situational challenges.
- Phase VI. Recommendations for Use
 - a. Additional required research.
 - b. Suggestions for use for identifying potential executives.
 - c. Recommend additions, deletions and clarifications as appropriately inferred by data analysis.

A. PHASE I. LITERATURE SEARCH

An extensive review of literature on management, leadership, and executive skills was conducted. Noted authorities, as well as some of the lesser known authors, tended to agree

as to the traits and qualities of executives. Executive development programs appeared to be a widely used procedure for grooming "the young lions." Investigation indicated that there are a host of appraisal and developmental programs available, each fitting particular organizational needs. The search is summarized in this section. Principal findings pertaining to executive identification, development and selection are treated.

1. Current Appraisal Techniques

Performance appraisals are among the most widely used instruments for evaluating performance [Bennett, 1959, p. 97-98, 159-163; Assessing Managerial Potential, 1958, p. 46]. This method clearly evaluates past performance and is typically used for administration decisions about salary, placement, promotion, or the need for special training. The name of the appraisal form is usually dependent upon the institution utilizing it. Nonetheless, all have the same objective. Performance reviews, stress interviews, and a battery of psychological tests include:

- general questionnaire
- Guilford-Zemmerman Temperament survey
- a statement-choice self-evaluation
- a non-verbal reasoning test
- vocational attitude inventory test
- the Educational Testing Service picture test (work scene variety of the TAT (Thematic Apperception Test))
- the Miller Analogies test
- Strong Vocational Interest Blank (SVIB).

These are widely used as aids to management for selecting an

individual with expected potential. No one test above is used universally, rather a combination thereof provides, with proper analysis, a psychological/motivational profile of the potential executive.

2. General Predictive Devices

Abraham K. Korman, in his article "The Prediction of Managerial Performance: A Review," lays out two basic types of predictions - Psychometric Prediction and Judgmental Prediction. Korman's article is, in the author's view, the most comprehensive, concise reference source of current executive selection instruments. Psychometric Prediction is the assessment of individuals based upon the relation between test scores and scores of a base criterion. Judgmental Prediction involves an intermediary who combines a set of scores and/or impressions in a subjective, perhaps intuitive fashion, and makes predictions as to the individual's standings on the criterion available. The correlation between these predicted standings and the actual criterion standings constitutes a test of judgmental prediction [Korman, 1968, p. 295-322].

The Psychometric Predictions are broken down into:

Cognitive Ability tests - research studies which have attempted to predict effective leadership behavior utilizing various types of ability tests. Most of these tests fall under the general classification of verbal abilities, but other types of tests have been used in specific situations [Korman, 1968, p. 297].

Objective Personality and Interest Inventories -

are used to measure facets of personality utilizing objectively-scored tests such as Kuder, Guilford-Zimmerman, Strong Vocational Interest Bland (SVIB), Jurgensen Classification Inventory and Bernreuter Personality Inventory mentioned previously [Korman, 1968, p. 302].

Leadership Ability Tests - are tests specifically designed to measure "leadership ability." They are generally considered by their constructors to be an amalgam of both cognitive and non-cognitive characteristics, having special implications for leadership in a formal organization [Korman, 1968, p. 302].

Personal History Analysis - the correlation of specific item(s) of background with occupational success [Korman, 1968, p. 307-308].

Executive Assessments - a method of assessment of the individual applicant on a variety of test and non-test predictors, usually including an extended interview by a psychologist, testing by executives and psychologists, and then making an explicit prediction on the degree of success expected of the assessee [Korman, 1968, p. 308-313].

Peer ratings - systems for prediction of how well a peer will do in a leadership role, should he be placed in one, utilizing various behavioral and other kinds of information generally gained from interactions between the person and another in an equal, with a non-supervisor-subordinate relationship [Korman, 1968, p. 313].

The purpose of Korman's paper was to review the literature as to the efficiency with which various kinds of methods predict managerial success. A second purpose was to ascertain whether such predictive studies throw light on the kinds of psychological constructs which might lead to an adequate theory of leadership behavior in the industrial situation. The conclusions of his review as he states them are:

- Intelligence, as measured typically by verbal ability tests, is a fair predictor of first-line supervisory performance but not of higher-level managerial performance.
- Objective personality inventories and "leadership ability" tests have generally not shown predictive validity, with the exception of the projective measure of managerial motivation developed by Miner.
- Personal history data as predictors are fair for first-line supervisors, but less so for the higher-level individual.
- "Judgmental" prediction methods, as exemplified particularly by executive assessment procedures and peer ratings, are generally better predictors than psychometric procedures, although allowance must be made for the generally small samples involved.
- Little has been learned from selection research which can contribute to a theory of leadership behavior.
- Changes in the orientation of predictive research are needed [Korman, 1968, p. 319].

3. Other Methods of Executive Selection

One of the writers had the opportunity over the past four years to discuss executive identification and selection with several of the most senior military officers on active duty. The informal conversations with the military

executives, the literature research, and interviews with some executives from the private sector tended to compliment and confirm view-points concerning the quality and traits desired or used in the selection and promotion process. None indicated a definite career progression, best route, nor preferentially prioritized qualities. In the end the illusive, intuitive "gut feel, whole man concept" seemed to be used most frequently...in spite of the recognized concomitant drawbacks (i.e., halo effect, propinquity, etc.).

The opinions of many authorities in the management fields regarding success requirements for the successful executive or potential executive include: (a) acquiring and maintaining excellence in management skills, qualities and acceptable behavior [Cerney, 1969, p. 40-85]; (b) the selection of the right company [McFarland, 1974, p. 450-455]; (c) modification of behavior by compressed positive experience [Jennings, 1967, p. 96-97]; (d) the generally accepted rules of conformity ("do's and don'ts") [Whyte, 1956, p. 189-200]; (e) a highly motivated individual with intellectual conditioning [Learned, 1951, p. 67-76]. The above are not all inclusive, but serve to illustrate the wide variance of opinions.

4. Appraisal Techniques Based on Situational Response

A situational response is the action a person would take when events take place requiring him to make decisions committing resources at his disposal. The authors found limited research completed or currently being developed using situational stimuli as a method of executive potential

identification. The studies by Standard Oil Company of New Jersey, and AT&T are instances of current research utilizing situational responses [Assessing Managerial Potential, 1958, p. 17-29]. Except for the above, Blake and Mouton, [1969], and Freeman and Motta, [1975], the identification executive capacity by response to situational stimuli has not been investigated in depth or scope.

B. PHASE II. IDENTIFICATION OF EXECUTIVE CAPACITY INDICATORS

Under the direction of Professor J.W. Creighton, Professor, Naval Postgraduate School, Monterey, California, several graduate students in the Management Curriculum conferred in a series of seminars over a ten week period. Initially a "brainstorming" technique was utilized to list, discuss and define management traits desired in successful executives. A list of traits and capabilities believed to be indicative of executive success was compiled and is shown in Table 1.

The list does not show a breakdown into the various components of technical and professional competence. This competence is assumed to be present in any individual competing for advancement. Rather, the list shows traits and capabilities likely to contribute to a composite capability for executive success.

1. Segregation of Indicators into Capacity Classes

The authors at this point departed from the main body of researchers and specifically undertook a different avenue of approach than taken by Freeman and Motta [1975].

TABLE 1
INITIAL LIST OF TRAIT INDICATORS

Professional and/or Technical Competence	A strong ego
Stable social life	Above average intelligence
High stress tolerance	Ability to use power
High frustration level	Ability to negotiate
Intuition	Concern for resources
Perception	High aspirations
Selective Independence	High energy levels
Willingness to try new ideas	Ability to rise to the occasion
Flexibility	Ability to deal with risks and uncertainties
Honesty	Upward mobility
Integrity	Ability to develop strategies
Morality	Ability to form and follow tactics
Motivation	Inquisitive mind
Appreciation of time & timing	Ability to train and develop personnel
Diagnostic ability	Common sense
Enjoyment of conflict	Confidence
Ability to communicate; (written and verbal)	Ability to set priorities
Recognition of own abilities and weakness	Survival instinct
Innovativeness	Foresight
Enthusiasm	
Healthy, subordinate superior relationship	

The authors felt that it was most important to devise a measure by which the traits could be investigated and later validated utilizing situational stimuli. It became apparent that like or similar traits could by their nature, be combined to form a general class of capacity identifiers. Table 2 depicts these classes. Most of the initial trait identifiers were sub-sets falling within these classes.

C. PHASE III. DEVELOPMENT OF THE TEST INSTRUMENT

From the list in Table 2, nine of the classes were selected for further study, namely decision-making capability, innovativeness, ability to manage time, communicative ability, psyche/status, mobility, rewarding family life, job security, and health.

They were chosen because time constraints limited the scope of the thesis, and because research effort and support literature in the selected classifications appeared to be adequate for hypothesis formulation for each of these classes. No implication is made that they are more important than those classes not selected to test the composite capability of an individual to commit resources wisely and perform effectively as an executive.

Questions were written to test how the individual would act in response to situations, or to find out what his position was. Each question was based upon a hypothesis derived from and supported by the literature. The original questions were administered to students at the Naval Postgraduate School to determine whether or not the questions were

TABLE 2
CONSOLIDATED LIST OF CAPACITY INDICATORS

Upward mobility	Ability under stress
Decision making capability	Reaction to conflict
Communicative ability	Desire for power
Innovativeness	Intuition
Ability to manage time	Personality
Psychic, Ego, status	Leadership ability
Health	Intelligence
Rewarding family and social life	Planning capability
Job security	Courage to commit resources
Mobility	

meaningful, and whether responses provided needed information. Sixty-five questions were acceptable. Forty-nine of these questions were incorporated into the final testing instrument, named "Executive Judgmental Perceptions" (Appendix B).

1. Questions and Hypothesis of Test Instrument

This section shows the questions included in the instrument. The hypothesis upon which the questions were founded are stated. Literature supporting the hypothesis is referenced. The questions relating to the separate identifier classes were intermingled throughout the testing instrument. However, they are grouped into identifier classes here because of commonality of purpose and for ease of referencing.

a. Decision-Making Capability

Questions 26, 41, 42, 43 and 44 in the instrument are intended to show the capacity for making effective decisions.

Question 26 - *"Which one of the following best describes what you usually do in making important decisions?"*

- a. Make the decision and inform your boss later on.
- b. Make the decision as if it were a routine matter.
- c. Put the problem up to those affected by the decision.
- d. Decision making is not my responsibility.
- e. Take time to check with your boss.

This question is based upon the hypothesis that successful executives are more concerned with solving the problem at hand than about the decision making process [McFarland, 1974, p. 270-271].

Question 41 - "You are about to propose a new policy which you feel is good for the organization. You intuitively believe, however, that you will have difficulty convincing certain segments of the organization. You are further aware that unless you receive almost across the board concurrence, top management will not institute the policy. How would you go about "seeing to it" that your policy is accepted?"

- a. Work around the opposition, by going directly to top management and attempt to convince them with the profitability of your proposed policy.
- b. Determine who your supporters are and seek their assistance to favorably impress the the opposition.
- c. Specifically, identify those individuals who are opposed and attempt to convince them individually.
- d. Ignore the opposition and continue with your new policy changes.
- e. Postpone introduction of the policy change and wait for better timing.

The hypothesis is that a successful executive is a strategist and uses his knowledge of people for mutual benefit of all concerned [McFarland, 1974, p. 450-455].

Question 42 - "As a decision maker:"

- a. You accept success and failure equally.
- b. When you have failed, you have accepted the consequences and continued on as before.
- c. When you fail you accept the consequences and will analyze the causative factors thereto. Such a set back will not deter your future efforts.
- d. Your aim is to always succeed no matter what procedures or methods must be employed to accomplish your objectives.
- e. You are successful because you thoroughly investigate the parameters surrounding the decision about to be made.

This question is founded upon the hypothesis that executives have deep feelings of satisfaction directly related to

accomplishment and achievement [McFarland, 1974, p. 39; Warner, 1962, p. 47-57].

Question 43 - "Assume you are considering several proven company executives for a promotion. However, you consider the best among them to be a "maverick" with respect to his management/leadership style. If you decide on selecting the "maverick" would you?"

- a. Insist that his management/leadership style conform to present organization policies.
- b. Modify the organization to adjust to his management/leadership style.
- c. Prefer to allow him to operate as he pleases so long as his performance results in a highly satisfactory performance.
- d. Prefer to allow him to operate within his style, but at the appropriate time tactfully remind him that the company policies are sound and will prove beneficial to him in the long run.
- e. You would not select the "maverick."

The hypothesis is that executives have a unique ability to pick people for situational needs [Fielder, 1965, p. 115-122].

Question 44 - "If you have just been promoted two levels above your present position (same company), you would function at this new level?"

- a. By proceeding cautiously before making decisions.
- b. By waiting to gain confidence and with additional experience make decisions faster than when initially assigned.
- c. With no delay in decision making because earlier training and experience adequately prepared you for this increased responsibility.
- d. Because in the past when assigned to a new or unfamiliar area, you had no difficulty in commanding the new job and therefore, would anticipate no delay in decision making now.
- e. By operating at this higher level may require you to grow into the job simply because of the scope of the position.

The question is founded upon the hypothesis that executives will quickly adapt to new environmental responsibilities and only minor delays in decisions will occur [Uris, 1962, p. 50-59, 63-67].

b. Innovativeness

Questions 27, 28, 29, 30 and 31 of the instrument are designed to display the ability to institute change in an organization, and cause the organization to adopt new technology.

Question 27 - *"Indicate which combination of words, when placed in the following sentence, would most accurately describe you: you hear about new work-related developments _____ most of my colleagues."*

- a. Considerably before.
- b. Sooner than.
- c. At about the same time as.
- d. Later than.
- e. Sometime after.

This question is based upon the hypothesis that effective executives become aware of work related developments before less competent ones [Creighton, Jolly, Denning, 1972, p. 16].

Question 28 - *"Indicate the frequency with which your subordinates, peer, and/or superiors came to you in the past month for work related information which was not a function of your position?"*

- a. 1-3
- b. 4-7
- c. 8-11
- d. 12-16
- e. 17 or more

This question is based upon the hypothesis that successful opinion leaders and that others have confidence in their

judgment [Creighton, Jolly, Denning, 1972, p. 19-21].

Question 29 - "In the past year, how many non-routine, work-related projects have been completed for which you supplied the original idea?"

- a. 0
- b. 1-2
- c. 3-4
- d. 5-6
- e. 7 or more

This question is based upon the hypothesis that successful executives are innovators, are dynamic, and modify organizations to accommodate change [Creighton, Jolly, Denning, 1972, p. 33].

Question 30 - "Which of the following do you tend to rely upon most heavily as a source of initial information for work-related projects and/or problems?"

- a. Literature - books, manuals, dissertations and other items which are not published on a regular basis.
- b. Vendors - representatives of, or documentation generated by suppliers or potential suppliers.
- c. Personal Experience - ideas which were previously used by yourself in similar situations and recalled directly by memory
- d. Staff - selected members of your staff who are not assigned directly to the project being considered.
- e. External Sources - sources which do not fall into any one of the categories.

This question is based upon the hypothesis that the higher the executive is within the executive circles the more he tends to rely on external sources [Fulmer, 1974, p. 361-380].

Question 31 - "When you hear about a new idea which may be of use to your organization you?"

- a. Analyze it in depth before instituting it.
- b. See how it works in other organizations.

- c. Turn it over to a person in your organization who is most likely to use it.
- d. Discuss it and its applicability at your next conference.
- e. Turn it over to a cost analyst to determine its value.

This question is based upon the hypothesis that the executive causes changes to happen in his organization [Koontz and O'Donnell, 1955, p. 524-530].

c. Ability to Manage Time

Questions 38, 39 and 40 in the instrument are intended to show the capacity of executives to use their time effectively.

Question 38 - *"How do you feel about the time you have to do your work?"*

- a. Have time for everything without feeling pushed.
- b. Wish you had a little more time to plan and to think.
- c. Necessary to keep pushing to get everything done.
- d. Very hard to do what is expected of you in the time available.
- e. Never seem to have enough time to do everything.

This question is based upon the hypothesis that successful executives utilize time efficiently and are able to make time available [Whyte, 1956, p. 155-165; Gardner, 1963, p. 52].

Question 39 - *"With respect to the amount of time you spend at work"*

- a. You do not view your position as having fixed working hours.
- b. You consider yourself as a professional that will give whatever amount of time is required, at the time, to accomplish the present undertaking.
- c. As a general rule, you accomplish at least or more work outside the office than while working at the office.

- d. You simply feel that working hours are for "others" and you give whatever time is required to accomplish a task and work at it until it is completed.
- e. You try not to allow your outside personal interests to cause you to mismanage your time.

This question is founded upon the hypothesis that successful executives have high energy levels, do not consider themselves as having regular working hours, and use their time to great advantage [Jennings, 1967, p. 88-89; McCay, 1959, p. 31-37].

Question 40 - *"Of the situations given, which of these best describes your work routine?"*

- a. You have time in your daily routine to spend time on the unexpected.
- b. As a general rule, your daily schedule is very heavy.
- c. If it were not for your subordinates taking up a good part of your time, you would have more than enough time to expand your involvement in the company's business.
- d. You have no difficulty with the management of your time since you set a fixed and precise daily schedule, allowing time for your seniors, subordinates, and whatever is left belongs to you.
- e. You are concerned with the amount of time you have to spend at the office, because you feel your superiors interpret this as an indicator of ineffectiveness.

This question is founded upon the hypothesis that successful executives make effective use of time [Oncken, 1974, p. 75-80].

d. Communicative Ability

Questions 23, 24, 25, 32 and 33 in the instrument are intended to show the effective use of communication.

Question 23 - *"Indicate the number of work-related organization to which you hold current membership."*

- a. 0
- b. 1-2
- c. 3-4

- d. 5-6
- e. More than the above

This question is based upon the hypothesis that successful executives are better informed and expand their levels of interests beyond local environment [Creighton, Jolly, Denning, 1972, p. 34].

Question 24 - *"How many new friends have you made in the past year?"*

- a. No need to make new friends.
- b. 1-2
- c. 3-5
- d. 6 or more
- e. Cannot remember exactly.

This question is founded upon the hypothesis that successful executives are extroverts and gregarious individuals [Creighton, Jolly, Denning, 1972, p. 16, 33-34].

Question 25 - *"On the average, how many people do you see daily, (excluding your immediate staff)?"*

- a. 0-4
- b. 5-8
- c. 9-12
- d. 12-16
- e. 16 or more

This question is based upon the hypothesis that executives interact with more people and are exposed to more new ideas than non-successful people [Fulmer, 1974, p. 307, 320-338].

Question 32 - *"When information concerning major decisions are to be made, you?"*

- a. Recognize, among other things, that upward communications have little or no value to the management of the organization.
- b. Acknowledge that an important decision about decisions is when to communicate them, if at all.
- c. Insist that a decision is communicated in a language that will not antagonize its

- receptiveness.
- d. Recognize that some restrictions may improve organizational effectiveness.
 - e. Insist that every decision be communicated in a language that leaves no doubt to the intent or spirit of the decision.

This question is founded upon the hypothesis that a successful executive is an effective communicator, because he realizes the importance of the timing of and strategy of communicating a decision [Knootz, 1972, p. 536-555; Fulmer, 1974, p. 296-316].

Question 33 - *"Indicate the total number of journals, magazines, and newspapers which you regularly read."*

- a. 1-2
- b. 3-4
- c. 5-6
- d. 7-8
- e. 9 or more

This question is founded upon the hypothesis that executives are well read, and professionally current through consumption of mass media [Creighton, Jolly, Denning, 1972, p. 22-24].

- e. Psyche/Status

Questions 34, 35, 36, 37 and 46 of the instrument are designed to display the reward needs of the individuals.

Question 34 - *"What is your present salary range?"*

- | | |
|-----------------------|-------------------------|
| a. \$10,000-\$20,000 | f. \$100,000-\$150,000 |
| b. \$20,000-\$30,000 | g. \$150,000-\$200,000 |
| c. \$30,000-\$50,000 | h. \$200,000-\$300,000 |
| d. \$50,000-\$75,000 | i. \$300,000 or greater |
| e. \$75,000-\$100,000 | |

This question was asked to determine the approximate financial compensation that each respondent received.

Question 35 - "Would you work at your present job for a lesser salary?"

- a. Yes
- b. No

This question is based upon the hypothesis that successful executives have high reward needs, other than money [Whyte, 1956, p. 159-160].

Question 36 - "If Yes, by how much?"

- | | |
|----------------------|-----------------------|
| a. 0-\$1,000 | f. \$15,000-\$20,000 |
| b. \$1,000-\$2,000 | g. \$20,000-\$30,000 |
| c. \$2,000-\$5,000 | h. \$30,000-\$40,000 |
| d. \$5,000-\$10,000 | i. \$40,000-\$50,000 |
| e. \$10,000-\$15,000 | j. \$50,000-\$100,000 |

This question was asked to determine approximately the amount that the respondent would relinquish.

Question 37 - "If No, why not?"

- a. Money is very important to you.
- b. You are worth what you are being paid.
- c. For your unique skills, you will not work for less than your present salary.
- d. Money is not a direct concern to you, but it is important to your family.
- e. Present earning power is necessary to provide a portfolio for future security.

This question was asked to determine from five responses given in the instrument what the respondents reasons were for not working at their present position for a lesser salary.

Question 46 - "In a position that you feel is not exactly what you want:"

- a. You do whatever is required and receive what you believe to be only minimal personal or professional satisfaction from the results of your efforts.
- b. You consider the results of your efforts to be negligible and in fact believe your efforts to be "dog work."
- c. You consider your efforts to be professionally and personally rewarding even though

- you are not completely happy with your present position.
- d. You have in retrospect, almost always derived personal satisfaction from your job regardless of your personal feelings toward the assignments.
 - e. You do what is required, knowing or hoping that the present assignment (occupation) is only a means to an end.

This question is based upon the hypothesis that successful executives tend to feel satisfied doing things that have to be done [McFarland, 1974, p. 96, 110].

f. Mobility

Questions 9, 16, 17, 19, 20, 21 and 47 of the instrument are intended to show managerial development.

Question 9 - *"Length of time with present organization? (Years)"*

Question 16 - *"How many different organizations have you been employed by in your life time?"*

Question 17 - *"What is the longest that you have worked for the same organization? (years)"*

Question 16 and 17 are based upon the hypothesis that successful executives move around as they move upward [Jennings, 1967, p. 8].

Question 19 - *"Have you changed your religious preference?
(1) Yes (2) No"*

Question 20 - *"If yes, how many times?"*

Questions 19 and 20 are based upon the hypothesis that successful executives change their religious denomination as they ascend the corporate ladder [Whyte, 1956, p. 405-422; Newcomer, 1955, p. 46-49; Packard, 1959, p. 194-206].

Question 21 - "What is/was your fathers occupation? If deceased or retired please indicate last occupation _____"

This question is based upon the hypothesis that successful executives who are children of proven executives have a higher incidence of becoming successful executives themselves [Jennings, 1967, p. 6-9].

Question 47 - "You accepted employment with your present company:"

- a. Thinking or knowing that it would be only a temporary assignment, carrying with it a promise or possibility that a better position would be available in a reasonable time.
- b. Realizing that it was exactly what you wanted to do and had no desire for higher levels of aspiration.
- c. Because of your specific or unique skills that were desired by the employer, who was willing to pay you commensurate with your proven abilities.
- d. Because of your unique skills that were desired by the employer but you also set your remuneration schedule.
- e. Because there were no other positions available or opportunities that suited you.

This question is founded upon the hypothesis that successful executives are sought after and set their own salary schedule [Knootz, 1972, p. 417-436; Uris, 1962, p. 96].

g. Rewarding Family Life

Questions 12, 13, and 45 in the instrument are intended to show the capacity for effective family relations.

Question 12 - "Select the most appropriate situation that describes your Marital Status? (1) Divorced (2) Divorced and remarried (3) Married (4) Single (5) Widow/Widower"

Question 13 - *"How many times have you been married?"*

Questions 12 and 13 are based upon the hypothesis that successful executives have high divorce rates [Packard, 1962, p. 58-66; Packard, 1959, p. 120, 122, 159-160, 170-172 and 279; Newcomer, 1955, p. 122-123].

Question 45 - *"As you reflect on your career, judge the present, and postulate about the future regarding the relationship with your family, family responsibilities and demands of your present position, how would you best describe the way in which the relationship exists or developed?"*

- a. Family responsibilities were/are not neglected since a mutual bond of understanding developed as you proceeded through your career, wherein the family was/is supportive of your professional goals.
- b. Your family has/did not place you in a position wherein you had to choose between family or professional goals.
- c. Family obligations occasionally have taken a secondary position if your professional goals and requirements of your job were to be attained. However, you attempted to make it up to the family whenever the occasion(s) allowed.
- d. You attempted to make a compromise decision between family and job, but rarely sacrificed the family.
- e. Sometimes, demands of the job, i.e., time sensitive issues, demanded that you put more hours on the job than you would like.

This question is founded upon the hypothesis that successful executives acknowledge family responsibility and work toward fulfilling it [Whyte, 1956, p. 162].

h. Job Security

Question 48 of the instrument is to display the fear of losing one's position.

Question 48 - *"When you take a vacation:"*

- a. You find it is most beneficial to take one long vacation as opposed to several short vacation trips.
- b. You fit your vacation schedule into what the organization will allow you to take.
- c. You find it best to schedule your vacation with the needs and desires of your family.
- d. You do not take long vacations (more than 2 weeks) because you recognize that you will have to work twice as hard to catch up on your work when you return.
- e. You take vacations only for reasons of health.

This question is founded upon the hypothesis that successful executives fear that the more time they are away from the job, the more his job is jeopardized [Whyte, 1956, p. 77].

i. Health

Question 49 in the instrument is to display the executive's belief in his state of health.

Question 49 - *"How good is your health?"*

- a. Poor - need rest and/or medical treatment to attack the rigorous of daily business activity.
- b. Based upon your judgment and substantiated by your physicians evaluation you are in good health for your age.
- c. Based upon your judgment and supported by your physicians evaluation you are in better health than someone of your age.
- d. Fair - you recognize the need to keep yourself physically toned up, but your demanding schedule has precluded you from adhering to a set exercise schedule.
- e. Perfect - can drive hard on any job, night or day.

This question is based upon the hypothesis that successful executives are concerned about their state of health, and attempt to stay 'healthy' [Uris, 1955, p. 123].

j. Miscellaneous/Biographical

Questions 4 through 8, 10, 11, 15, 18 and 22 of the instrument were intended to point out other pertinent background information. The authors did not incorporate these responses into the trait identifiers, but rather, used them to evaluate the proven executives in toto.

D. PHASE IV. DATA GATHERING

Potential respondents were selected from the most recent roster of the U.S.'s Biggest Corporations [Forbes, May 1974]. Using the list of 500 largest corporations contained in Forbes in conjunction with Standard and Poor's Register of Corporations, Directors and Executives, Geographical Index and supplements thereto [Standard and Poor's, 1974] names and home addresses of 300 executive's were obtained. Top Executives, in the positions of Chairman, Chief Executive Officer, Presidents, Vice-Presidents, and General Managers were chosen randomly to represent the statistical sample. Hereafter, this group of Executives will be referred to as Population "A".

In the case of the Federal Government Employee, a list of "Super Grade" civil servants (GS 16-18) were selected as comparable to private industry executives. The assumption is made, not because of comparable compensation but rather because of comparable control of assets and decision making impact within the federal and private sector of the economy [Srinivasan, Shockey & Weinstein, 1973]. From a list of 249 names, eighty-six were randomly selected from a roster of employees of the Navy Department. This group of individuals will hereafter be referred to as Population "B".

To compliment the private and federal executives a list of all Flag Officers of the U.S. Navy was obtained. From the list that included over 325 Admirals, two hundred sixty-five names were selected as potential respondents. Due to administrative decisions the Admirals were not contacted.

1. Mailing the Instrument

Each informational gathering document was accompanied by an individually personalized typed letter, Appendix B. More than 400 such letters were prepared. Because of the personalized attention to each potential respondent, letters were mailed on several different days, with little delay between mailing dates, Appendix C. In each case the questionnaire was mailed in a standard brown Department of the Navy 8 1/2 x 11 inch envelope. It contained a coded self addressed envelope to ensure higher mail returns [Parten, 1950]. To further ensure high returns the questionnaires were mailed to the home address of the executive's of private industry. The authors believed that this procedure precluded the "filter effect" of the office secretarial and administrative staff. This procedure was not followed however, in the case of the Super Grade federal employees.

2. Analysis of Questionnaire Returns

Table 3 and Appendix C reflect, by population, the number of returns received over a two month period. In view of the quantity of questionnaires to be mailed, no conscious decision was made to mail them by postal zones of the informants. Ideally, it would be best if the questionnaire arrived at the informants home on some Friday or Saturday in January [Wortman, 1975].

Mildred Parten stated, "While the proportion of returns varies from survey to survey, and within a survey among various classes of the population, the experience of

TABLE 3
ANALYSIS OF QUESTIONNAIRE RETURNS

NUMBER OF RETURNS BY POPULATION								
"A"			"B"			"A&B"		
Identity	Number Mailed	Number Returned	Percent Returned	Number Mailed	Number Returned	Percent Returned	Number Mailed	Number Returned
12 Feb 75	141						141	
14 Feb 75	31			26			57	
16 Feb 75	90						90	
20 Feb 75	21						21	
28 Feb 75				60			60	
Usable Returns		110	38.8		66	76.7		176
Ret.No.Fwd Address		11	3.8		--	----		11
Ret. Incomp.		16*	5.6		1	1.1		17

*It is significant to note that each of the 16 questionnaires returned, but not filled out, were accompanied by a personal letter from the respondents or their staff stating that due to deaths, retirements or desirous of further information, the questionnaire was returned unanswered. See Appendix C for chronology of mail returns.

mail surveyors is that the percentage of replies varies by economic classes." The American Institute of Public Opinion found that the highest returns (about 40 percent) came from people listed in Who's Who, while 18 percent of the people on the telephone lists, 15 percent of the registered voters in poor areas, and 11 percent of the people on relief returned their ballots [Parten, 1950].

The number of returns, in terms of percent (55%) was greater than anticipated. In view of the favorable responses, no follow up letters were sent.

E. PHASE V. ANALYSIS

This section compares the executives from private industry (population A) with the executives from the federal sector (population B) with respect to the responses they provided to questions in the test instrument. It also compares the combined responses of the above two executive populations with the decision choices predicated by management literature for this group.

The information furnished by the above two populations were evaluated with the use of the Statistical Package for Social Science (SPSS) program on the IBM 360 computer. An analysis of the data indicated that only three of the eight hypothesis of this study could be completely tested. Until such time as the information profile of the general population is obtained the remaining five hypothesis must, by necessity, remain untested.

The three hypothesis tested were:

- Hypothesis 3. Executive capacity indicators for different individuals are similar although executives operate within different circles.
- Hypothesis 4. Persons of similar executive capability react in the same or like fashion to a given decision - alternative opportunity.
- Hypothesis 5. Individuals of similar executive positions will select the decision alternative expected of them as stated in management literature.

1. Significant Findings

The non-parametric statistical tests, chi-square, and the parameteric "student's" t distribution tests (where appropriate) were used to test hypothesis. Application of these tests determined the acceptance (similarity) or rejection (difference) of each hypothesis at the 0.05 level of statistical significance (95% confidence level).

A biographical category was added as a separate class to the nine original identifier classes. The classes were then tested against each other.

The results from testing the three hypothesis against the ten potential identifying categories are shown in Tables 4 and 5. Attention is directed to Table 4. This table shows the comparison by capacity indicator class between populations "A" and "B". It indicates that the business executives and government executives responded alike only on questions pertaining to health, job security and family relations. They differed in response in all other indicator classes. Interestingly, it is the areas where they differ that most affect the performance aspects of an executive life.

TABLE 4
COMPARISON OF POPULATIONS "A" AND "B"

Capacity indicator class -----	χ^2 values resulting from comparison of total scores of pop. "A" against "B" in each capacity indicator class*	**Degrees of Freedom (no. of questions in Class-1)	χ^2 value at which difference between pops. "A" and "B" are assured at the 95% confidence level	Comparison populations are alike when χ^2 Col 3, χ^2 Col 5, they differ when χ^2 Col 3, χ^2 Col 5 -----	
No. Name				ALIKE	DIFFERENT
1 2	3	4	5***	6	7
1. Decision Making Capabil- ity	40.37	11	19.70		XXXXXXX
2. Innova- tiveness	31.25	13	22.40		XXXXXXX
3. Ability to Manage time	22.91	6	12.60		XXXXXXX
4. Communi- cative Ability	51.81	16	26.30		XXXXXXX
5. Psyche/ Status	21.46	4	9.49		XXXXXXX
6. Mobility	34.03	12	21.00		XXXXXXX
7. Reward- ing Family Life	9.65	6	12.59	<u>XXXXX</u>	
8. Job Security	4.16	3	7.81	<u>XXXXX</u>	
9. Health	2.67	3	7.81	<u>XXXXX</u>	
10. Misc/Bio	83.85	22	33.92		XXXXXXX

*Col 3 - The derivation of the chi-square (χ^2) values from the comparison of question response scores is shown in Appendix F.

**Col 4 - The number of the degrees of freedom is the number of questions in population "A" plus the number in "B" minus one less than the number of populations.

***Col 5 - This comes from the chi-square tables.

Table 5 compares the combined responses of populations "A" and "B" to the responses the authors had been led to expect from review of management literature. For none of the predictor classes does the chi-square test indicate that the responses predicted from the literature correspond to those responses received from the federal and private sector executives. Tests were not performed to determine whether either population "A" or "B" would have corresponded to the predictions.

Hypothesis 5, that executive act as predicted in the management literature, is not supported by the chi-square test results shown in Table 5. For this reason, it would be erroneous to utilize the test scoring results derived from the literature and used in this study for scoring results of a questionnaire with these questions administered to individuals in any group of potential executives.

2. Coding the Instrument for Further Use

With the literature based scoring system ruled out, an alternative system would be to use the answer patterns of the executives themselves. Table 6 presents such a scoring grid. It is derived from the ratio of the numbers of answers in each response alternative, to the total number of responses for each question. The percentage figures thus derived were rounded off to the nearest tenth. It is suggested that these figures be rounded to the nearest whole number in actual application. This system provides a weighting scores for each alternative within a question.

TABLE 5
COMPARISON OF RESPONSES OF POPULATIONS "A" AND "B"
COMBINED WITH RESPONSES PREDICTED FROM
MANAGEMENT LITERATURE

Capacity indicator class		χ^2 values resulting from comparison of combined "A" & "B" scores with predicted scores	Degrees of Freedom (no. questions in "A&B" + L.E. - 1)	χ^2 values at which differences between "A" & "B" combined and Literature based predicted scores at the = 95% conf. level	COMPARISON	
-----					Responses match predictions when χ^2 Col. 3 χ^2 Col. 5 responses differ from predictions when χ^2 Col. 3 χ^2 Col. 5	
No.	Name				ALIKE	DIFFERENT
1	2	3	4	5	6	7
1.	Decision Making Capability	486.23	19	30.30		XXXXXXXXXX
2.	Innovativeness	85.12	20	31.40		XXXXXXXXXX
3.	Ability to Manage time	79.52	11	19.70		XXXXXXXXXX
4.	Communicative Ability	141.32	19	30.30		XXXXXXXXXX
5.	Psyche/Status	89.06	8	15.50		XXXXXXXXXX
6.	Mobility	49.30	4	9.48		XXXXXXXXXX
7.	Rewarding Family Life	9.68	4	9.48		XXXXXXXXXX
8.	Job Security	34.49	4	9.48		XXXXXXXXXX
9.	Health	34.49	4	9.48		XXXXXXXXXX
10.	Misc/Bio	-----	--	----		-----

- Note: 1. Col. 3 -- Chi-square (χ^2) values are derived from the comparison of scores as shown in Appendix F.
2. Col. 4 -- The number of the degrees of freedom is from adding the questions for "A" & "B" + Literature Estimate (L.E.) minus one less than the number of populations.
3. Col. 5 -- From chi-square tables.

TABLE 6
SCORING OF EXECUTIVE JUDGMENTAL PERCEPTION
TEST INSTRUMENT

QUESTION NUMBER	RESPONSE CHOICE									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
10	5.1	18.8	34.1	8.0	1.7	17.0	13.6	1.1		
11	30.7	15.9	23.3	25.0	.6	1.1	.6			
12	2.3	8.0	88.6	---	1.1					
13	83.5	14.8	.6							
16	17.0	21.6	22.7	14.2	10.8	5.7	1.7	3.4		
18	9.1	16.5	3.4	4.5	75.5					
20	10.8	.6	.6							
21	31.3	7.4	32.4	9.1	15.9					
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
23	8.0	29.0	27.3	17.6	15.9					
24	1.1	9.1	26.7	47.0	14.2					
25	11.4	30.7	28.4	12.5	15.3					
26	18.8	42.2	33.5	.6	2.3					
27	22.2	38.1	31.3	4.0	1.1					
28	25.6	22.7	19.9	7.4	12.5					
29	2.3	15.3	27.8	19.3	29.5					
30	10.2	1.1	26.1	33.5	25.6					
31	15.3	3.4	40.9	38.6	.6					
32	----	19.3	11.4	3.4	59.7					
33	.6	10.8	33.5	17.0	36.9					
34	2.3	2.3	44.9	4.5	6.3	10.2	13.1	11.9	4.5	
35	55.7	42.6								
36	1.2	2.3	8.0	4.0	5.7	5.1	5.7	1.7	8.0	9.1
37	1.1	19.9	9.7	5.7	6.3					
38	17.6	42.6	16.5	3.4	19.3					
39	23.9	56.8	1.1	11.9	5.7					
40	56.8	39.8	.6	2.3	----					
41	2.8	21.6	59.1	6.3	.6					
42	11.4	4.5	69.9	1.1	10.8					
43	1.7	4.0	35.2	54.5	4.0					
44	10.2	14.8	19.9	25.6	14.8					
45	33.0	18.8	25.0	6.8	15.9					
46	3.4	.6	23.3	54.0	12.5					
47	28.4	13.1	35.2	7.4	9.7					
48	14.8	26.7	39.2	14.2	2.3					
49	1.1	45.5	30.1	10.8	11.9					

The above table displays coding criteria as established from the preferences indicated by the combined responses of populations "A and B." They are expressed in terms of percentage values for each response choice and are identified beneath a number (1 through 8) or a letter (A through J). Biographical questions 1 through 9, 14, 15, 17, 19, and 22 were not adaptable to nor necessarily required coding. It is suggested that the above figures be rounded out to the nearest whole number.

The data collected provided no rationale for weighting the questions nor identifiers classes against each other. Data supporting the coding matrix is presented in Appendix D, which shows the number of responses by block in each question. The derivation of the chi-square figures shown in Tables 4 and 5 appear in Appendix F.

Appendix F also shows comparisons in responses for each question by means of chi-square tests.

3. Supportive Interviews

The limited number of interviews conducted to substantiate the study appeared to support it. Time constrained the conduct of sufficient effort, however.

III. SUMMARY OF FINDINGS

Among the many problems facing organizations is the identification and selection of individuals who are promotable ...eventually into executive circles. The identification of the fast riser is a challenge for the private, public, and military sector. Organizations must encourage the most promising individuals.

A multitude of devices, techniques and training programs are now being used to satisfy this need. Of the techniques available, those which attempt to assist management in the selection of individuals are with few exceptions psychologically based. The tests singularly or in combination provide a psychological profile. As indicators of success, they have not proven to be adequate.

Very limited research however, has been done in using situational stimuli as a means to assess potential. The purpose of this study effort was to investigate the feasibility of using situational stimuli to identify indicators of potential success.

A program of action consisting of six phases was designed to investigate seven study objectives and eight hypothesis. Each were related to the overall problem objective. Through a search of current literature and empirical observations, identification of possible indicators of executive capacity were compiled. From the collected lists of possible identifiers several major capacity categories were selected to use

for testing successful executives in the industrial, federal and military complexes. These indicators fell into nine indicator classes: Decision-Making Capability, Innovativeness, Ability to Manage Time, Communicative Ability, Psyche/Status, Mobility, Rewarding Family Life, Job Security, and Health. Situational questions based upon current management literature were written. A test instrument was developed from them, and the instrument administered to two populations: the public and private sector executives. Fifty-six percent of the three hundred sixty-nine responded.

Responses were processed utilizing the statistical package for social sciences (SPSS) program on the IBM 360 computer.

The findings of the data from the tested hypothesis, by question, shows that in 21 questions the informants responded statistically alike, or 46% of the time. When potential identifiers were grouped into blocks of nine capacity categories, population "A" and "B" were statistically different in every group. When populations "A" and "B" were combined and then compared with management literature, they were statistically different in 92% of the questions. When items were grouped to test like capacity identifiers, population "A" and "B" were different in all cases.

This study suggests that management literature cannot be depended on for providing a base for studies of the executive.

Wide differences separated the two populations studied. Though no hard proof is evident, the authors feel that the environmental factors of each populations arena are different

and greatly affect the variety and mode of decision alternatives. Each is successful in his environment.

"If a man reaches the top, he is not going to tell you how he got there, because he perhaps does not know, or if he does, he perhaps can not or is unable to translate it to you."

- A Senior Executive of a very large United States Corporation

IV. CONCLUSION

The analysis of this study show that:

1. Populations "A" and "B" are different with respect to the class of identifiers for hypothesis 3 and 4.
2. Management literature cannot be depended on as base for studies of the executive, i.e., this study is not in support of hypothesis 5.
3. In light of item 2 above, a new scoring system for accessing executive potential is offered as a new criterion for determining executive capacity. (See Table 6)
4. Evidence from item 2 above, suggests that the study of executive performance henceforth may be studied from a situational approach.

A. PHASE VI. RECOMMENDATIONS FOR USE

The findings based upon the analysis of the data furnished by the situational mode are encouraging. It is also incomplete. Five of the eight hypothesis were not tested but to an insufficient statistical data base. The authors make the following recommendations for follow-on research:

1. Administer the informational gathering document (Executive Judgmental Perceptions) to the general population and determine respective base line.

2. Compare data of proven executives with that of the general population.
3. If necessary and appropriate, determine scoring of questions and degree of bias by interviewing a limited number of informants from the general and executive population.
4. Delete any confusing or misleading questions and perform such statistical tests as necessary to prove or disprove the five untested hypothesis.
5. Validate the test instrument by statistical methods inconjunction with interviews as indicated in recommendation three above.
6. With the cooperation of organizations from each of the three populations (private, public, and military), administer the test instrument to a sample of individuals who in the opinion of the organizations have identified as individuals with limited or no executive capacity potential.
7. Submit the test instrument, after question validation and base line establishment, to comparable levels of management in the public, private, and military sectors in the United States.

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APPENDIX A

Definition of Key Terms

Appendix contains five key words; success, executive, trait, indicator, capacity and management, plus their definitions. Definitions are provided as means to facilitate common understanding when reviewing this study.

APPENDIX A
Definition of Key Terms

- Success:** highest position attainable within hierarchy of organization, or salary remuneration well above the average. A favorable or satisfactory outcome or result. The gaining of wealth, fame, rank, etc. [Webster, 1960]. The measure of success is definitely open to question, but salary level appears to be the most significantly considered factor, seconded by expenditure authorization and to a much lower weight, level of supervision (Srinivasan, Shockey & Weinstein, 1973).
- Executive:** any person whose function is to administer or manage affairs, as of a corporation, school, etc. [Webster, 1960].
- Trait:** a distinguishing quality or characteristic, especially of personality [Webster, 1960].
- Indicator:** to be or give a sign or token of; signify; betoken; intimate [Webster, 1960].
- Capacity:** the ability to contain, absorb, or receive and hold [Webster, 1960].
- Management:** term used to mean both an area of knowledge and people making up the profession [Uris, 1962].

APPENDIX B

Executive Judgmental Perceptions Questionnaire

This appendix contains two items utilized in the initial stages of the study. The first is a letter of introduction that was sent to 369 individuals of population A and B to familiarize the potential informant with the purpose and scope of the study. The second item is an exact copy of the informational gathering document (Executive Judgmental Perceptions) that accompanied the letter.

NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA - 93940

IN REPLY REFER TO:

NC4(Cf)/lb
7 February 1975

Mr. John Doe
3169 Salem Drive
Cupcake, MI 10014

Dear Mr. Doe,

The purpose of this letter is to request your assistance in a research program regarding successful executives. As a professor of the Naval Postgraduate School, Monterey, California, I am conducting research studies with proven executives in top management positions.

I have enclosed a short series of questions entitled "Executives Judgmental Perceptions". This information document asks for basic, yet specific situational decision choices. Your answers will provide invaluable data upon which a fundamental and a unique baseline will be established. I will assure you that your personal identity and individual responses will not be released in any way. Only unidentified group information will be used in this study. The success or failure of this research effort will naturally depend upon your response.

The enclosed series of questions should take approximately fifteen minutes to answer. The document is divided into small sections with pertinent instructions prior to each division.

Thank you for your cooperation.

Sincerely,

J.W. Creighton
Professor
Department of Operations Research
and Administrative Sciences

EXECUTIVE JUDGMENTAL PERCEPTIONS



SOLICITATION OF JUDGEMENTAL PERCEPTIONS

INSTRUCTIONS FOR COMPLETING THIS INFORMATION DOCUMENT ARE PROVIDED BEFORE EACH SECTION.

SECTION ONE

Please enter the most appropriate answer in the box at the right of each question. The number preceeding the solid vertical line correspondes to the question number in the appropriate box or boxes. If the question calls for a response of more than a one digit response please place "ONLY" one digit per box. Disregard the numbers to the right of the boxes.

		YOUR ANSWER
1. Is your present employer. . .(1) Military (2) Civilian?	1.	<input type="text"/> 1
2. What position do you hold within your organization? (Please write out your position) i.e. President, Finanical Manager, or Production Manager. If Military, please indicate rank.	2.	<input type="text"/> 2
<hr/>		
3. Location of organization? (1) New England (2) Eastern U.S. (3) Southeast (4) North Central (5) South Central (6) North- west (7) Southwest (8) Alaska (9) Hawaii (10) Overseas	3.	<input type="text"/> <input type="text"/> 3 4
4. Age?	4.	<input type="text"/> <input type="text"/> 5 6
5. Sex? (1) Female (2) Male	5.	<input type="text"/> 7
6. Height? (INCHES)	6.	<input type="text"/> <input type="text"/> 8 9
7. Weight? (lbs)	7.	<input type="text"/> <input type="text"/> <input type="text"/> 10 11 12
8. Race? (1) American Indian (2) Black (3) Oriental (4) Spanish-American (5) White	8.	<input type="text"/> 13
9. Lenght of time with present organization? (YEARS)	9.	<input type="text"/> <input type="text"/> 14 15
0. What is your LAST level of formal education? (1) High School Diploma (2) BA (3) BS (4) MBA (5) MPA (6) Masters (7) Doctorate	10.	<input type="text"/> 16
1. What was your major field of study?_____	11.	<input type="text"/> 17
2. Select the most appropriate situation that describes your Marital Status? (1) Divorced (2) Divorced and remarried (3) Married (4) Single (5) Widow/Widower	12.	<input type="text"/> 18

- | | | | | |
|-----|---|-----|--|----|
| 13. | How many times have you been married? | 13. | <input type="text"/> | 19 |
| 14. | How many children do you have? Sons _____
(Indicate on spaces provided) Daughters _____
None _____ | 14. | <input type="text"/> <input type="text"/> <input type="text"/> | 2 |
| 15. | Spouse's highest level of formal education?
(1) No Spouse (6) 15 years
(2) Less than 12 years (7) 16 years
(3) 12 years (8) 17 years
(4) 13 years (9) 18 years
(5) 14 years (10) Greater than 18 years | 15. | <input type="text"/> <input type="text"/> | 23 |
| 16. | How many different organizations have you been employed by in your life time? | 16. | <input type="text"/> <input type="text"/> | 25 |
| 17. | What is the longest that you have worked for the same organization? (YEARS) | 17. | <input type="text"/> <input type="text"/> | 27 |
| 18. | What is your religious preference? (1) None (2) Catholic
(3) Jewish (4) Other (5) Protestant (Please indicate denomination) _____ | 18. | <input type="text"/> | 29 |
| 19. | Have you changed your religious preference? (1) Yes
(2) No | 19. | <input type="text"/> | 30 |
| 20. | If <u>yes</u> , how many times? | 20. | <input type="text"/> | 31 |
| 21. | What is/was your fathers occupation? If deceased or retired please indicate last occupation _____ | 21. | <input type="text"/> | 32 |
| 22. | Are you a United States Citizen? (1) Yes (2) No | 22. | <input type="text"/> | 33 |

SECTION TWO

Please answer the following questions in the present tense, i.e., how would you decide today, not how you decided in the past. Indicate your response in the box to the right of each question. The number preceeding the solid vertical line correspondes to the question number in the appropriate box. Disregard the numbers to the right of the boxes.

- | | | | | |
|-----|---|-----|----------------------|----|
| 23. | Indicate the number of work-related organizations to which you hold current membership. | 23. | <input type="text"/> | 34 |
|-----|---|-----|----------------------|----|
- A. 0
B. 1 - 2
C. 3 - 4
D. 5 - 6
E. More than the above

24. How many new friends have you made in the past year?

- A. No need to make new friends.
- B. 1 - 2
- C. 3 - 5
- D. 6 or more.
- E. Cannot remember exactly.

24. ☐ 35

25. On the average, how many people do you see daily, (Excluding your immediate staff)

- A. 0 - 4
- B. 5 - 8
- C. 9 - 12
- D. 12 - 16
- E. 16 or more.

25. ☐ 36

26. Which one of the following best describes what you usually do in making important decisions?

- A. Make the decision and inform your boss later on.
- B. Make the decision as if it were a routine matter.
- C. Put the problem up to those affected by the decision.
- D. Decision making is not my responsibility.
- E. Take time to check with your boss.

26. ☐ 37

27. Indicate which combination of words, when placed in the following sentence, would most accurately describe you: you hear about new work-related developments _____ most of my colleagues.

- A. Considerably before
- B. Sooner than
- C. At about the same time as
- D. Later than
- E. Sometime after

27. ☐ 38

28. Indicate the frequency with which your subordinates, peer, and/or superiors came to you in the past month for work related information which was not a function of your position?

- A. 1 - 3
- B. 4 - 7
- C. 8 - 11
- D. 12 - 16
- E. 17 or more

28. ☐ 39

29. In the past year, how many non-routine, work-related projects have been completed for which you supplied the original idea?

- A. 0
- B. 1 - 2
- C. 3 - 4
- D. 5 - 6
- E. 7 or more

29. ☐ 40

30. Which of the following do you tend to rely upon most heavily as a source of initial information for work-related projects and/or problems?

- A. Literature - books, manuals, dissertations, and other items which are not published on a regular basis.
- B. Vendors - representatives of, or documentation generated by suppliers or potential suppliers.
- C. Personal Experience - ideas which were previously used by yourself in similar situations and recalled directly by memory.
- D. Staff - selected members of your staff who are not assigned directly to the project being considered.
- E. External Sources - sources which do not fall into any one of the categories.

30. ☐ 41

31. When you hear about a new idea which may be of use to your organization you?

- A. Analyze it in depth before instituting it.
- B. See how it works in other organizations.
- C. Turn it over to a person in your organization who is most likely to use it.
- D. Discuss it and its applicability at your next conference.
- E. Turn it over to a cost analyst to determine its value.

31. ☐ 42

32. When information concerning major decisions are to be made, you?

- A. Recognize, among other things, that upward communications have little or no value to the management of the organization.
- B. Acknowledge that an important decision about decisions is when to communicate them, if at all.
- C. Insist that a decision is communicated in a language that will not antagonize its receptiveness.
- D. Recognize that some restrictions may improve organizational effectiveness.
- E. Insist that every decision be communicated in a language that leaves no doubt to the intent or spirit of the decision.

32. ☐ 43

33. Indicate the total number of journals, magazines, and newspapers which you regularly read.

- A. 1 - 2
- B. 3 - 4
- C. 5 - 6
- D. 7 - 8
- E. 9 or more

33. ☐ 44

34. What is your present salary range?

- | | |
|-------------------------|--------------------------|
| A. \$10,000 - \$20,000 | F. \$100,000 - \$150,000 |
| B. \$20,000 - \$30,000 | G. \$150,000 - \$200,000 |
| C. \$30,000 - \$50,000 | H. \$200,000 - \$300,000 |
| D. \$50,000 - \$75,000 | I. \$300,000 or greater |
| E. \$75,000 - \$100,000 | |

34. ☐ 45

35. Would you work at your present job for a lesser salary?

- A. Yes
- B. No

35. ☐ 46

36. If Yes, by how much?

- | | |
|------------------------|-------------------------|
| A. 0 - \$1,000 | F. \$15,000 - \$20,000 |
| B. \$1,000 - \$2,000 | G. \$20,000 - \$30,000 |
| C. \$2,000 - \$5,000 | H. \$30,000 - \$40,000 |
| D. \$5,000 - \$10,000 | I. \$40,000 - \$50,000 |
| E. \$10,000 - \$15,000 | J. \$50,000 - \$100,000 |

36. ☐ 47

37. If No, why not?

- A. Money is very important to you.
- B. You are worth what you are being paid.
- C. For your unique skills, you will not work for less than your present salary.
- D. Money is not a direct concern to you, but it is important to your family.
- E. Present earning power is necessary to provide a portfolio for future security.

37. ☐ 48

38. How do you feel about the time you have to do your work?

- A. Have time for everything without feeling pushed.
- B. Wish you had a little more time to plan and to think.
- C. Necessary to keep pushing to get everything done.
- D. Very hard to do what is expected of you in the time available.
- E. Never seem to have enough time to do everything.

38. ☐ 49

39. With respect to the amount of time you spend at "work"

- A. You do not view your position as having fixed working hours
- B. You consider yourself as a professional that will give whatever amount of time is required, at the time, to accomplish the present undertaking.
- C. As a general rule, you accomplish at least or more work outside the office than while working at the office.
- D. You simply feel that working hours are for "others" and you give whatever time is required to accomplish a task and work at it until it is completed.
- E. You try not to allow your outside personal interests to cause you to mismanage your time.

39. ☐ 50

40. Of the situations given, which of these best describes your work routine?

- A. You have time in your daily routine to spend time on the unexpected.
- B. As a general rule, your daily schedule is very heavy.
- C. If it were not for your subordinates taking up a good part of your time, you would have more than enough time to expand your involvement in the company's business.
- D. You have no difficulty with the management of your time since you set a fixed and precise daily schedule, allowing time for your seniors, subordinates, and whatever is left belongs to you.
- E. You are concerned with the amount of time you have to spend at the office, because you feel your superiors interpret this as an indicator of ineffectiveness.

40. ☐ 51

41. You are about to propose a new policy which you feel is good for the organization. You intuitively believe, however, that you will have difficulty convincing certain segments of the organization. You are further aware that unless you receive almost across the board concurrence, top management will not institute the policy. How would you go about "seeing to it" that your policy is accepted?

- A. Work around the opposition, by going directly to top management and attempt to convince them with the profitability of your proposed policy.
- B. Determine who your supporters are and seek their assistance to favorably impress the opposition.
- C. Specifically, identify those individuals who are opposed and attempt to convince them individually.
- D. Ignore the opposition and continue with your new policy changes.
- E. Postpone introduction of the policy change and wait for better timing.

41. ☐ 52

42. As a decision maker:

- A. You accept success and failure equally.
- B. When you have failed, you have accepted the consequences and continued on as before.
- C. When you fail you accept the consequences and will analyze the causative factors thereto. Such a set back will not deter your future efforts.
- D. Your aim is to always succeed no matter what procedures or methods must be employed to accomplish you objectives.
- E. You are successful because you thoroughly investigate the parameters surrounding the decision about to be made.

42. ☐ 53

43. Assume you are considering several proven company executives for a promotion. However, you consider the best among them to be a "maverick" with respect to his management/leadership style. If you decide on selecting the "maverick" would you?
- A. Insist that his management/leadership style conform to present organization policies.
 - B. Modify the organization to adjust to his management/leadership style.
 - C. Prefer to allow him to operate as he pleases so long as his performance results in a highly satisfactory performance.
 - D. Prefer to allow him to operate within his style, but at the appropriate time tactfully remind him that the company policies are sound and will prove beneficial to him in the long run.
 - E. You would not select the "maverick."
44. If you have just been promoted two levels above your present position (same company), you would function at this new level?
- A. By proceeding cautiously before making decisions.
 - B. By waiting to gain confidence and with additional experience make decisions faster than when initially assigned.
 - C. With no delay in decision making because earlier training and experience adequately prepared you for this increased responsibility.
 - D. Because in the past when assigned to a new or unfamiliar area, you had no difficulty in commanding the new job and therefore, would anticipate no delay in decision making now.
 - E. By operating at this higher level may require you to grow into the job simply because of the scope of the position.
45. As you reflect on your career, judge the present, and postulate about the future regarding the relationship with your family, family responsibilities and demands of your present position, how would you best describe the way in which the relationship exists or developed?
- A. Family responsibilities were/are not neglected since a mutual bond of understanding developed as you proceeded through your career, wherein the family was/is supportive of your professional goals.
 - B. Your family has/did not place you in a position wherein you had to choose between family or professional goals.
 - C. Family obligations occasionally have taken a secondary position if your professional goals and requirements of your job were to be attained. However, you attempted to make it up to the family whenever the occasion(s) allowed.
 - D. You attempted to make a compromise decision between family and job, but rarely sacrificed the family.
 - E. Sometimes, demands of the job, i.e., time sensitive issues, demanded that you put more hours on the job than you would like.

46. In a position that you feel is not exactly what you want:

- A. You do whatever is required and receive what you believe to be only minimal personal or professional satisfaction from the results of your efforts.
- B. You consider the results of your efforts to be negligible and in fact believe your efforts to be "dog work."
- C. You consider your efforts to be professionally and personally rewarding even though you are not completely happy with your present position.
- D. You have in retrospect, almost always derived personal satisfaction from your job regardless of your personal feelings toward the assignments.
- E. You do what is required, knowing or hoping that the present assignment (occupation) is only a means to an end.

46. ☐ 57

47. You accepted employment with your present company:

- A. Thinking or knowing that it would be only a temporary assignment, carrying with it a promise or possibility that a better position would be available in a reasonable time.
- B. Realizing that it was exactly what you wanted to do and had no desire for higher levels of aspiration.
- C. Because of your specific or unique skills that were desired by the employer, who was willing to pay you commensurate with your proven abilities.
- D. Because of your unique skills that were desired by the employer but you also set your remuneration schedule.
- E. Because there were no other positions available or opportunities that suited you.

47. ☐ 58

48. When you take a vacation:

- A. You find it is most beneficial to take one long vacation as opposed to several short vacation trips.
- B. You fit your vacation schedule into what the organization will allow you to take.
- C. You find it best to schedule your vacation with the needs and desires of your family.
- D. You do not take long vacations (more than 2 weeks) because you recognize that you will have to work twice as hard to catch up on your work when you return.
- E. You take vacations only for reasons of health.

48. ☐ 59

49. How good is your health?

- A. Poor - need rest and/or medical treatment to attack the rigorous of daily business activity.
- B. Based upon your judgement and substantiated by your physicians evaluation you are in good health for your age.
- C. Based upon your judgement and supported by your physicians evaluation you are in better health than someone of your age.
- D. Fair - you recognize the need to keep yourself physically toned up, but your demanding schedule has precluded you from adhering to a set exercise schedule.
- E. Perfect - can drive hard on any job, night or day.

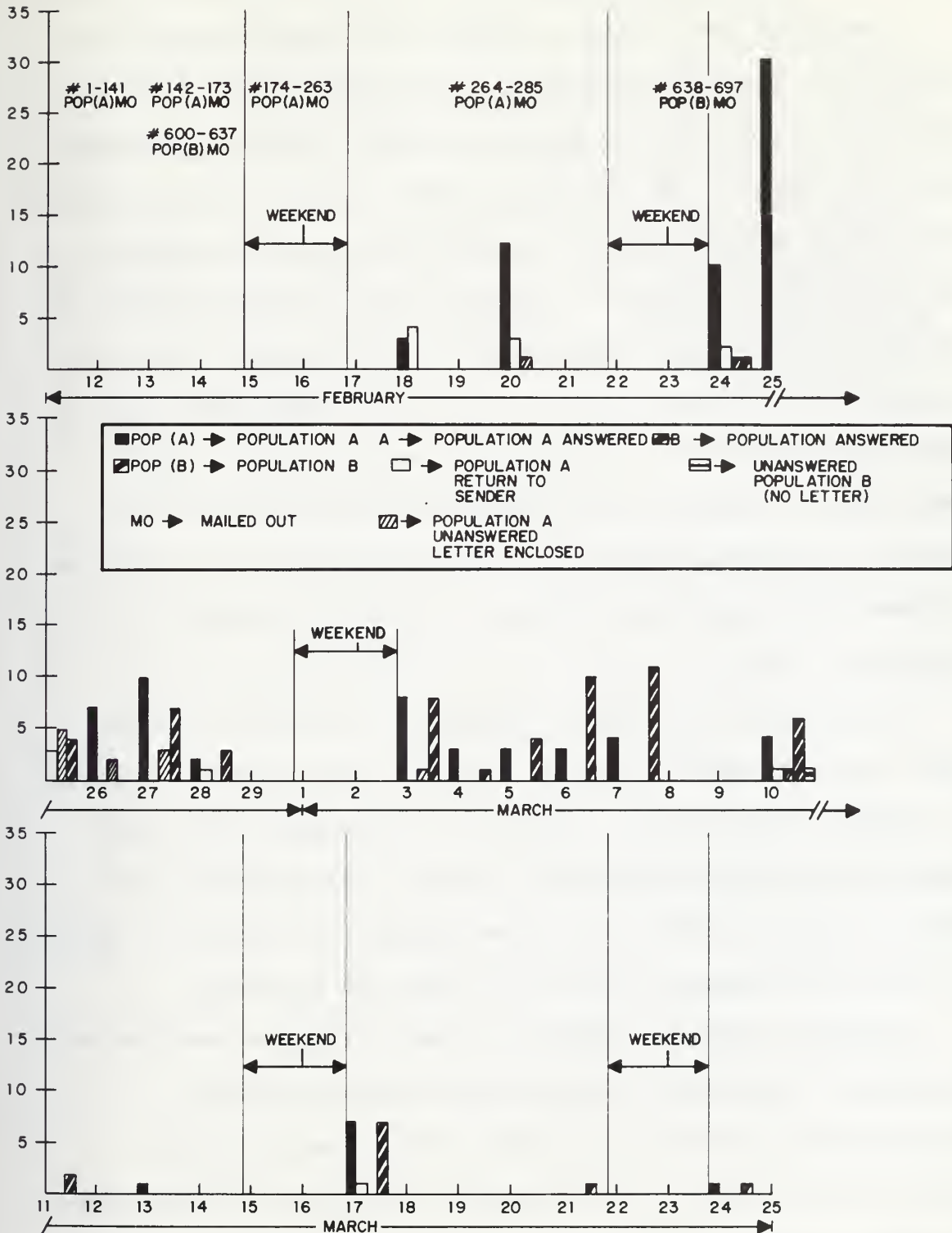
49. ☐ 60

APPENDIX C

Chronology of Mailing and Return of Questionnaire

This Appendix displays the chronology of disbursements and receipts of the informational gathering document over a two month period.

MAIL RETURNS—BY POPULATION (FEB-MARCH, 75)



APPENDIX D

Questions two, eleven, eighteen and twenty-one of the Information Gathering Document (IGD) requested that each respondent enter (in the space provided) specific biographical information. By the very nature of the question, a wide range of responses were anticipated and in fact received. The information received in question two, "What position do you hold within your organization?" was recorded into five groups by the authors. The grouping was predicated upon positions of similar responsibility and stature. This consolidation appeared appropriate and facilitated data analysis for population "A". This methodology could not be followed with population "B" due to the vast number of dissimilar titles.

Information received in response to question eleven, "What was your major field of study?" were grouped according to academic disciplines. They were catalogued into seven categories for population "A" and four for population "B". Pages 63 and 67 reflect the total number of different "major's" as well as the groups into which each was assigned.

Question eighteen, "What is your religious preference?" was asked to determine among other things, specific denominational preference within the Protestant faith. A list with the number of preferences indicated in parenthesis is shown on page 64. Not all informants elected to answer this question in general or list specific protestant denom-

ination preferences or affiliation in particular. For data analysis purposes, denominations were coded into the most preferred choices to facilitate SPSS programming.

Question twenty-one, "What is/was your father's occupation?" was an item designed to investigate socio-economic mobility as well as relationships between father-son occupations. From the occupations reported, five general occupational areas were apparent. They were categorized according to the authors judgments. Pages 65 and 69 show the authors coding as well as the statistical breakdown through histograms.

POPULATION A

QUESTION 2: POSITION HELD WITHIN ORGANIZATION

Group 1

Chairman (12)
Chairman & C.E.O. (21)
C.E.O. (2)
C.E.O. & President (1)
President and Chairman (4)
President (22)
Chairman, President & Acc't
Executive (1)
Chairman, President &
C.E.O. (1)

Group 2

Vice Chairman & Executive
Officer (1)
Vice Chairman (1)

Group 3

Executive V.P. (3)
Vice President (5)
V.P. Production (2)
V.P. Marketing Research (1)
V.P. International Ops (1)
V.P. Research & New
Acquisitions (1)
V.P. General Manager (1)
V.P. Manufacturing Staff (1)

V.P. Finance (2)
Senior V.P. Sales (1)
Senior V.P. (2)

Group 4

General Manager (1)
Financial Manager (1)
Associate (F.M. Consult)(1)
International Marketing
Manager (1)
Senior Staff Officer (Law
And Finance) (1)
Public Affairs Officer (1)
Manager, MPR, PLG, and DEV (1)

Group 5

Self Employed (1)

POPULATION A
QUESTION 11: MAJOR FIELD OF STUDY

Group 1. Hard Science (Eng)

Electronics (1)
Mechanical & Elec Eng (1)
Civil Engineering (1)
Electrical Engineering (5)
Industrial Engineering (2)
Engineering (10)
Aero Engineering (1)
Mechanical Engineering (4)

Group 2. Hard Sciences (other)

Medicine (1)
Pharmacy (1)
Zoology (1)
Science (2)
Chemistry, Physics, Biology (1)
Chemistry (2)
Mathematics (1)

Group 3. Soft Science

Social Science (1)
Economics (12)
History (2)
Philosophy (2)
Liberal Arts (1)
Law (2)
Economics & Law (2)
Education (1)

Group 4. Business

Business Administration (8)
Accounting (5)
Business (4)
Business Management (1)
Finance (7)
Public Administration (1)
Industrial Relations (1)
Marketing (1)
CPA (1)
Industrial Administration (1)
Industrial Science (1)

Group 5. Overlapping Fields

Engineering & Business (1)

Group 6. Miscellaneous Fields

Agriculture & Education (1)
Agriculture (1)

Group 7.

Greater than High School, but
less than Bachelors level (1)

POPULATION A
QUESTION 18: RELIGIOUS PREFERENCE

Elaboration of religious denomination preferences (responses
4 and 5, question 18)

Response #4 (Religious preference, other)

Greek Orthodox (1)
Jesus Christ of Latter Day Saints (1)
Agnostic (1)

Response #5 (Protestant denomination preference)

Protestant (no affiliation/preference) (31)
Presbyterian (18)
Episcopal (14)
Congregational (4)
Lutheran (3)
Methodist (2)
Baptist (2)

POPULATION A
QUESTION 21: FATHERS' OCCUPATION

Group 1. Blue Collar

Fireman (1)
Mechanic (2)
Plumber (2)
Tailor (1)
Clerk (1)
Chef (1)
Labor (1)
Railroad Agent (1)
R.R. Conductor (1)
Police (1)

Group 2. Professional (High)

Engineer (4)
Attorney (3)
Educator (1)
Doctor (4)
Dentist (1)
Minister (2)
Chairman of Corp (1)
President of the Corp (2)
President of a Corp (4)
V.P. very large Corp (1)
Banker (5)
Business Executive (5)
Industrial Executive (3)
Oil Field Superintendent (1)
V.P. Production (1)
Metallurgist (1)
Executive (1)
Sec. of High. Comm. (1)
Financial Manager (1)
Financial Executive (1)

Industrialist

Group 3. Professional (Low)

Selling Executive (1)
Broker (1)
Consulting Investor (1)
Building Engineer (2)
Editor/Publisher (1)

Group 4. White Collar

Wholesaler (1)
Manufacturing (2)
Business Manager (5)
Manager V.A. Hospital (1)
Contractor (4)
Office Manager (1)
Merchant (1)
Brewer (1)
Selling (1)
Whole Paper Dealer (1)
Insurance Salesman (1)
Sales Manager (1)
Retail Lumber (2)
Industrial Set up man (1)
Inspector (1)
Country Registrar (1)
Owner of Business (1)
Estate Manager (1)

Group 5. Agriculture

Farming (6)
Cattleman (1)

POPULATION B

QUESTION 2: POSITION HELD WITHIN ORGANIZATION

Director, Career Management Division (1)
Director, Labor Relations (1)
Financial Manager (2)
Technical Director (6)
Assistant Technical Director (2)
Director, Civilian Personnel Office (1)
Division Director (4)
Head, Research Department (1)
PL-360 (1)
Senior Research Scientist (3)
Department Head (5)
Division Head (5)
Director of Engineering (1)
Manager Research Branch (1)
Associate Division Superintendent (2)
Deputy Logistic Manager (1)
Counsel (Legal) (3)
Deputy Assistant for Real Estate (1)
Deputy Project Manager (1)
Director of Banking and Contract Finance (1)
Special Assistant for Advanced Research (1)
Assistant Deputy Commander Plans and Policy and Systems
Development (1)
Chief Engineer (1)
Program Director (1)
Deputy Technical Director (1)
Principal Advisor of Education and Training (1)
Electrical Engineer (1)
Head, Systems Acquisition (1)
Consultant to Technical Director (1)
Section Engineer (1)
Head, Negotiation Staff (1)
Deputy Executive Director (1)
Deputy for International And Interagency Affairs (1)

POPULATION B
QUESTION 11: MAJOR FIELD OF STUDY

Group 1. Hard Science (Engineering)

Engineer (7)
Aero Engineer (2)
Electrical Engineer (10)
Mechanical Engineering (4)
Nuclear Engineering (1)

Group 2. Hard Science (Other)

Physics (10)
Oceanography (1)
Chemistry (2)
Geo-Physics (2)
Physics/Math (2)
Mathematics (1)

Group 3. Soft Science

Psychology (4)
Law (6)
Educational Tech (1)
Economics (1)

Group 4. Business

International Transportation (1)
Personnel Administration (1)
Finance (1)
Public Administration (1)
Business (4)
Accounting (4)

POPULATION B
QUESTION 18: RELIGIOUS PREFERENCE

Elaboration of religious denomination preference (response 4 and 5, question 18)

Response #4 (religious preference, other)

*Unitarian (1)

Response #5 (Protestant denomination preference)

Protestant (no preference/affiliation) (1)

Presbyterian (4)

Episcopal (6)

Congregational (1)

Lutheran (2)

Baptist (2)

Methodist (6)

Nazarene (1)

Unitarian (1)

Disciples of Christ (1)

*Note: One respondent indicated "Unitarian" as religious preference not included among protestant denominations.

POPULATION B
QUESTION 21: FATHERS' OCCUPATION

Group 1. Blue Collar

Labor (2)
Typesetter (1)
Plumber (1)
Train Dispatcher (1)
Tailor (1)
Baker (2)
Prospector (1)
Carpenter (1)
Postman (1)
Service Station Operator (1)
Production Foreman (1)
Financial Clerk (1)
Police Officer (1)

Group 2. Professional (High)

Doctor (1)
Minister (1)
Educator (4)
Lawyer (2)
Pharmacist (1)

Group 3. Professional (Low)

Business Manager (1)
Restaurateur (1)
Self Employed (1)
Credit Manager (2)
Retail Food (1)

Group 4. White Collar

Real Estate (1)
Salesman (4)
Insurance Broker (1)
Contractor (4)
Superintendent (1)
Insurance Salesman (1)
Corporate Secretary (1)
Building Contractor (5)
Lumber Company (1)
Small Business Owner (3)
Fund Raiser (1)

Group 5. Agriculture

Cattleman (1)
Sheepman (1)
Farmers (6)

The response to question 1, "Is your present employer military or civilian," shows:

	<u>Total Informants</u>	<u>Percent of Total</u>
Civilian	110	62.5
Military	<u>66</u>	<u>37.5</u>
Combined Total	176	100%

Question 2 was designed to permit respondents to fill in the present title of their position. A wide range of titles were given. They are shown in Appendix D just as they appeared on the returned IGD questionnaire. Population "A" informants having similar titles were grouped, in the authors judgment, according to position designations and responsibilities. The numbers in parenthesis indicate the number of informants of like positions or titles. They were placed in five groups for ease of coding and data handling. This procedure could not be followed in the case of the supergrade federal employees (GS 16-18) because variations in responses from this population showed little similarity in titles or levels of responsibility. Their position, by titles, are shown in Appendix D as they were recorded on the questionnaire. An attempt to categorize them by salary range or "felt fair pay" was initiated, but later dropped because in each case they were all receiving the maximum monetary remuneration under present statutory authorization (\$36,000).

The data shows the following for Population A:

<u>Position</u>	<u>Population Number/Percent</u>
A	74/67.3
B	2/1.8
C	20/18.2
D	8/7.3
E	1/.9
Missing Observation	5/4.5

Question 3 asked the location of their organizations and was limited to ten geographical areas. The number was later expanded to thirteen to facilitate the handling of information provided by the informants. The responses were:

	Pop. A no./%	Pop. B no/%	Pop. A&B no./%
(1) New England	5/4.5	0/0	5/2.8
(2) Eastern U.S.	32/29.1	42/63.6	74/42.0
(3) Southeast	7/6.4	1/1.5	8/4.5
(4) North Central	19/17.3	2/3.0	21/11.9
(5) South Central	6/5.5	0/0	6/3.4
(6) Northwest	10/9.1	0/0	10/5.7
(7) Southwest	23/20.9	20/30.3	43/24.4
(8) Alaska	0/0	0/0	0/0
(9) Hawaii	1/.9	0/0	1/.6
(10) Overseas	0/0	1/1.5	1/.6
(11) International	2/1.8	0/0	2/1.1
(12) Rocky Mountains	1/.9	0/0	1/.6
(13) Canada	1/.9	0/0	1/.6
Missing Observations	3/2.7	0/0	3/1.7

In response to question 4, "Age"...the responses show:

Age	Population A	Population B	Population A&B
Minimum	33	37	33
Maximum	79	63	79
Mean	55.750	50.439	53.761
Median	55.750	51.667	54.083

For a more detailed presentation see Appendix , pages thru .

In response to question 5, "Sex"...the responses show:

Sex	Population A	Population B	Population A&B
Male	101/91.8	61/92.4	162/92.0
Female	8/7.3	5/7.6	13/7.4
Missing Obser	1/.9	0/0	1/0.6

In response to question 6, "Height"(inches)...the responses indicate:

Height	Population A	Population B	Population A&B
Minimum	60.0	61.0	60.0
Maximum	77.0	77.0	77.0
Mean	70.764	70.348	70.608
Median	70.955	70.500	70.813

Refer to Appendix G for a detailed presentation of individual height data.

In response to question 7, "Weight"(lbs)...the data fell into the following range:

Weight	Population A	Population B	Population A&B
Minimum	135	135	135
Maximum	260	230	260
Mean	181.343	172.894	178.138
Median	179.250	170.750	175.286

In response to question 8, "Race"...the informants indicated:

Race	Population A no./%	Population B no./%	Population A&B no./%
American Indian	0/0	1/1.5	1/.6
Black	0/0	0/0	0/0
Oriental	0/0	1/1.5	1/.6
Span-American	1/.9	0/0	1/.6
White	109/99.1	64/97.0	173/98.3
Missing Obser	0/0	0/0	0/0

In response to question 9, "Length of time with your present organization (years)"...the data shows a wide range:

Years	Population A	Population B	Population A&B
Minimum	1	1	1
Maximum	50	41	50
Mean	23.245	17.030	20.915
Median	24.500	19.5	22.056

In response to question 10, "Last level of formal education completed"...the informants provided the following:

Education	Population A no./%	Population B no./%	Population A&B no./%
High School	7/6.4	2/3.0	9/5.1
BA	25/22.7	8/12.1	33/18.8
BS	44/40.0	16/24.2	60/34.1
MBA	13/11.8	1/1.5	14/8.0
MPA	1/.9	2/3.0	3/1.7
Masters	10/9.1	20/30.3	30/17.0
Doctrate	9/8.2	15/22.7	24/13.6
L.L.B.	1/.9	1/1.5	2/1.1
Missing Obser	0/0	1/1.5	1/0.6

Question 11, "What was your major field of study?" provided a wide range of responses. For purposes of analysis the data was grouped into 7 general fields by the authors.

Discipline	Population A no./%	Population B no./%	Population A&B no./%
Hard Science (Eng)	30/27.3	24/36.4	54/30.7
Hard Science (oth)	10/9.1	18/27.3	28/15.9
Soft Science	29/26.4	12/18.2	41/23.3
Business	33/30.0	11/16.7	44/25.0
Overlapping Flds	1/.9	0/0	1/.6
Misc Fields	2/1.8	0/0	2/1.1
>HS<BA/BS	1/.9	0/0	1/.6
Missing Obser	4/3.6	1/1.5	5/2.8

Refer to Appendix D for detailed listings within field groups.

Question 12, "Select the most appropriate situation that describes your marital status"...the data shows:

Status	Population A no./%	Population B no./%	Population A&B no./%
Divorced	3/2.7	1/1.5	4/2.3
Divorced & Remarried	13/11.8	1/1.5	14/8.0
Married	94/85.5	62/93.9	156/88.6
Single	0/0	0/0	0/0
Widow/Widower	0/0	2/3.0	2/1.1

Question 13, "How many times have you been married"...the data shows:

Times Married	Population A no./%	Population B no./%	Population A&B no./%
One	87/79.1	60/90.9	147/83.5
Two	21/19.1	5/7.6	26/14.8
Three	1/.9	0/0	1/.6
Missing Obser	1/.9	1/1.5	2/1.1

Question 14, "How many children do you have"...the data shows:

Sons	Population A no./%	Population B no./%	Population A&B no./%
0	24/21.8	12/18.2	36/20.5
1	34/30.9	20/30.3	54/30.7
2	31/28.2	18/27.3	49/27.8
3	12/10.9	13/19.7	25/14.2
4	7/6.4	3/4.5	10/5.7
5	1/.9	0/0	1/.6
6	1/.9	0/0	1/.6
Daughters			
0	22/20.0	14/21.2	36/20.5
1	37/33.6	23/34.8	60/34.1
2	31/28.2	13/19.7	44/25.0
3	12/10.9	10/15.2	22/12.5
4	7/6.4	2/3.0	9/5.1
5	0/0	4/6.1	4/2.3
6	0/0	0/0	0/0
7	1/.9	0/0	1/.6
No children	2/1.8	2/3.0	4/2.3
Had children	108/98.2	64/97.0	172/97.7

In response to question 15, "Spouse's highest level of formal education"...the data reflects:

Level of Education	Population A no./%	Population B no./%	Population A&B no./%
No spouse	0/0	1/1.5	1/.6
Less than 12 yrs	0/0	1/1.5	1/.6
Twelve years	15/13.6	18/27.3	33/18.8
Thirteen years	6/5.5	5/7.6	11/6.3
Fourteen years	20/18.2	8/12.1	28/15.9
Fifteen years	9/8.2	5/7.6	14/8.0
Sixteen years	41/37.3	10/15.2	51/29.0

Level of Education (cont'd)

Seventeen years	6/5.5	9/13.6	15/8.5
Eighteen years	4/3.6	5/7.6	9/5.1
Greater than 18 yrs	6/5.5	2/3.0	8/4.5
Missing Obser	3/2.7	2/3.0	5/2.8

In response to question 16, "How many different organizations have you been employed by in your life time"...the data shows:

No. of different Organizations	Population A no./%	Population B no./%	Population A&B no./%
1	25/22.7	5/7.6	30/17.0
2	26/23.6	12/18.2	38/21.6
3	26/23.6	14/21.2	40/22.7
4	12/10.9	13/19.7	25/14.2
5	14/12.7	5/7.7	19/10.8
6	4/3.6	6/9.1	10/5.7
7	0/0	3/4.5	3/1.7
8	1/.9	5/7.6	6/3.4
9	0/0	0/0	0/0
10	2/1.8	1/1.5	3/1.7
11	0/0	0/0	0/0
12	0/0	0/0	0/0
13	0/0	1/1.5	1/.6
Missing Obser	0/0	1/1.5	1/.6

In response to question 17, "What is the longest that you have worked for the same organization (years)"...the data reveals:

	Population A	Population B	Population A&B
Minimum	4	6	4
Maximum	50	41	50
Mean	24.836	21.016	23.431
Median	24.643	21.750	23.167

Refer to Appendix G for a detailed presentation of individual year data.

In response to question 18, "What is your religious preferences?", the informants data were grouped, by the authors, in expanded cells to indicate the wide and significant preferences within the Protestant Faith. The data shows:

Faith	Population A no./%	Population B no./%	Population A&B no./%
None	7/6.4	9/13.6	16/9.1
Catholic	11/10.0	18/27.3	29/16.5
Jewish	3/2.7	3/4.5	6/3.4
Lutheran	3/2.7	2/3.0	5/2.8
Other	7/6.4	1/1.5	8/4.5
Protestant	12/10.9	11/16.7	23/13.1
Protestant/no Affiliation	31/28.2	11/16.7	42/23.9
Presbyterian	18/16.4	4/6.1	22/12.5
Episcopal	14/12.7	6/9.1	20/11.4
Congregational	4/3.6	1/1.5	5/2.8

Refer to Appendix D for a detailed presentation of additional religious preference for responses "other" and "Protestant."

In response to question 19, "Have you changed your religious preference"...the data shows:

Changed Religion	Population A no./%	Population B no./%	Population A&B no./%
Yes	13/11.8	8/12.1	21/11.9
No	97/88.2	56/84.8	153/86.9
Missing Observations	0/0	2/3.0	2/1.1

In response to question 20, that relates to question 19, "If yes, how many times"...the data shows:

Number of times	Population A no./%	Population B no./%	Population A&B no./%
Zero	97/88.2	58/87.9	155/88.1
One	12/10.9	7/10.6	19/10.8
Two	1/.9	0/0	1/.6
Three	0/0	1/1.5	1/.6

In response to question 21, "What is/was your father's occupation?", the responses were grouped into six categories for purposes of data analysis because of many differing occupations. The exact occupational title with the corresponding number of each occupation is contained in Appendix D.

Occupation	Population A no./%	Population B no./%	Population A&B no./%
Professional (high)	46/41.8	9/13.6	55/31.3
Professional (low)	6/5.5	7/10.6	13/7.4
White Collar	34/30.9	23/34.8	57/32.4
Agriculture	8/7.3	8/12.1	16/9.1
Blue Collar	14/12.7	14/21.2	28/15.9
Chose not to respond	2/1.8	5/7.6	7/4.0

In response to question 22, "Are you a United States citizen"...the data shows:

Citizen	Population A no./%	Population B no./%	Population A&B no./%
Yes	106/96.4	65/97.0	171/97.2
No	4/3.6	0/0	4/2.3
Missing Obser	0/0	1/1.5	1/.6

In response to question 23, "Indicate the number of work-related organizations to which you hold current membership"...the data reflects:

	Number of Organizations	Population A no./%	Population B no./%	Population A&B no./%
A.	0	6/5.5	8/12.1	14/8.0
B.	1 - 2	18/16.4	33/50.0	51/29.0
C.	3 - 4	36/32.7	12/18.2	48/27.3
D.	5 - 6	24/21.8	7/10.6	31/17.6
E.	More than the above	23/20.9	5/7.6	28/15.9
	Chose not to respond	3/2.7	1/1.5	4/2.3

In response to question 24, "How many new friends have you made in the past year"...the data shows:

	Number of New Friends	Population A no./%	Population B no./%	Population A&B no./%
A.	No need to make new friends	1/.9	1/1.5	2/1.1
B.	1 - 2	6/5.5	10/15.2	16/9.1
C.	3 - 5	23/20.9	24/36.4	47/26.7
D.	6 or more	57/51.8	26/39.4	83/47.0
E.	Cannot remember exactly	21/19.1	4/6.1	25/14.2
	Chose not to respond	2/1.8	1/1.5	3/1.7

In response to question 25, "On the average, how many people do you see daily, (excluding your immediate staff)"... the results reflect:

	Number See Daily	Population A no./%	Population B no./%	Population A&B no./%
A.	0 - 4	13/11.8	7/10.6	20/11.4
B.	5 - 8	39/35.5	15/22.7	54/30.7
C.	9 - 12	27/24.5	23/34.8	50/28.4
D.	12 - 16	12/10.0	10/15.2	22/12.5
E.	16 or more	17/15.5	10/15.2	27/15.3
	Chose not to respond	2/1.8	1/1.5	3/1.7

In response to question 26, "Which one of the following best describes what you usually do in making important decisions?" Refer to Appendix B for explanation to responses A thru E. The data shows the following:

Response Choice	Population A no./%	Population B no./%	Population A&B no./%
A	14/12.7	19/28.8	33/18.8
B	57/51.8	19/28.8	76/42.2
C	35/31.8	24/36.4	59/33.5
D	0/0	1/1.5	1/.6
E	2/1.8	2/3.0	4/2.3
Chose not to Respond	2/1.8	1/1.5	3/1.7

In response to question 27, "Indicate which combination of words, when placed in the following sentence, would most accurately describe you: you hear about new work-related developments _____ most of my colleagues"...the data shows:

	Population A no./%	Population B no./%	Population A&B no./%
A. Considerably Before	30/27.3	9/13.6	39/22.2
B. Sooner than	39/35.3	28/42.4	67/38.1
C. At abt the same time as	28/25.5	27/40.9	55/31.3
D. Later than	7/6.4	0/0	7/4.0
E. Sometime after	2/1.8	0/0	2/1.1
Chose not to respond	4/3.6	2/3.0	6/3.4

In response to question 28, "Indicate the frequency with which your subordinates, peer, and/or superiors came to you in the past month for work-related information which was not a function of your position"...the data exhibits:

Response Choice	Population A no./%	Population B no./%	Population A&B no./%
A. 1 - 3	30/27.3	15/22.7	45/25.6
B. 4 - 7	23/20.9	17/25.8	40/22.7
C. 8 - 11	14/12.7	21/31.8	35/19.9
D. 12 - 16	9/8.9	4/6.2	13/7.4
E. 17 or more	14/12.7	8/12.1	22/12.5
Chose not to respond	20/18.2	1/1.5	21/11.9

In response to question 29, "In the past year, how many non-routine, work-related projects have been completed for which you supplied the original idea"...the data illustrates:

Response Choice	Population A no./%	Population B no./%	Population A&B no./%
A. 0	3/2.7	1/1.5	4/2.3
B. 1 - 2	11/10.0	16/24.2	27/15.3
C. 3 - 4	30/27.3	19/28.8	49/27.8
D. 5 - 6	19/17.3	15/22.7	34/19.3
E. 7 or more	38/34.5	14/21.2	52/29.5
Chose not to respond	9/8.2	1/1.5	10/5.7

In response to question 30, "Which of the following do you tend to rely upon most heavily as a source of initial information for work-related projects and/or problems?" Refer to Appendix B for amplification of response choices. The results show the following:

	Population A no./%	Population B no./%	Population A&B no./%
A. Literature	10/9.1	8/12.1	18/10.2
B. Vendors	1/.9	1/1.5	2/1.1
C. Personal Exp.	24/21.8	22/33.3	46/26.1
D. Staff	39/35.5	20/30.3	59/33.5
E. Exter. Sources	32/29.1	13/19.1	45/25.6
Chose not to respond	4/3.6	2/3.0	6/3.4

Refer to Appendix B for explanation of responses A through E for questions 31 and 32.

In responses to question 31, "When you hear about a new idea which may be of use to your organization do you"...the responses are as follows:

Response Choice	Population A no./%	Population B no./%	Population A&B no./%
A	18/16.4	9/13.1	27/15.3
B	3/2.7	3/4.5	6/3.4
C	42/38.2	30/45.5	72/40.9
D	44/40.0	24/36.4	68/38.6
E	1/.9	0/0	1/.6
Chose not to respond	2/1.8	0/0	2/1.1

In response to question 32, "When information concerning major decisions are to be made, do you"...the data shows:

Response Choice	Population A no./%	Population B no./%	Population A&B no./%
A	0/0	0/0	0/0
B	20/18.2	14/21.2	34/19.3
C	14/12.7	6/9.1	20/11.4
D	3/2.7	3/4.5	6/3.4
E	66/60.0	39/59.1	105/59.7
Chose not to respond	7/6.4	4/6.1	11/6.3

In response to question 33, "indicate the total number of journals, magazines, and newspapers which you regularly read"...the results are:

Response Choice	Population A no./%	Population B no./%	Population A&B no./%
A. 1 - 2	0/0	1/1.5	1/.6
B. 3 - 4	9/8.2	10/15.2	19/10.8

Response Choice (cont'd)

C. 5 - 6	36/32.7	23/34.8	59/33.5
D. 7 - 8	19/17.3	11/16.7	30/17.0
E. 9 or more	44/40.0	21/31.8	65/36.9
Chose not to respond	2/1.8	0/0	2/1.1

In response to question 34, "What is your present salary range"...the data shows:

Response Choice	Population A no./%	Population B no./%	Population A&B no./%
A. \$10-20,000	4/3.6	0/0	4/2.3
B. \$20-30,000	4/3.6	0/0	4/2.3
C. \$30-50,000	14/12.7	65/98.5	79/44.9
D. \$50-75,000	7/6.4	1/1.5	8/4.5
E. \$75-100,000	11/10.0	0/0	11/6.3
F. \$100-150,000	18/16.4	0/0	18/10.2
G. \$150-200,000	23/20.9	0/0	23/13.1
H. \$200-300,000	21/19.1	0/0	21/11.9
I. \$300,000 or more	8/7.3	0/0	8/4.5
Chose not to respond	0/0	0/0	0/0

In response to question 35, "Would you work for a lesser salary"...the results show:

	Population A no./%	Population B no./%	Population A&B no./%
Yes	73/66.4	25/37.9	98/55.7
No	34/30.9	41/62.1	75/42.6
Chose not to respond	3/2.7	0/0	3/1.7

In response to question 36, (that was a follow-up to item 35) which reads, "If yes, by how much"...the data shows:

	Population A no./%	Population B no./%	Population A&B no./%
A. \$0-1,000	1/.9	1/1.5	2/1.2
B. \$1-2,000	2/1.8	2/3.0	4/2.3

Question 36 (cont'd)

C. \$2-5,000	5/4.5	9/13.6	14/8.0
D. \$5-10,000	2/1.8	5/7.6	7/4.0
E. \$10-15,000	8/7.3	2/3.0	10/5.7
F. \$15-20,000	8/7.3	1/1.5	9/5.1
G. \$20-30,000	7/6.4	3/4.5	10/5.7
H. \$30-40,000	2/1.8	1/1.5	3/1.7
I. \$40-50,000	14/12.7	0/0	14/8.0
J. \$50-100,000	16/14.5	0/0	16/9.1
Chose not to respond	45/40.9	42/63.6	87/52.4

Space limitations of the Statistical Package for Social Science (SPSS) data analysis program precluded proper coding of this item. Thus, when no response was given, the data numerically summed within response "A". Data as depicted above was manually extrapolated for response "A" and "chose not to respond."

Refer to Appendix B for complete statement of responses A through E for questions 37 through 49.

Question 37 refers to the responses given in question 35. Question 37 asks, "If No, why not?"...the data shows:

Response Choice	Population A no./%	Population B no./%	Population A&B no./%
A	1/.9	1/1.5	2/1.1
B	19/17.3	16/24.2	35/19.9
C	7/6.4	10/15.2	17/9.7
D	3/2.7	7/10.6	10/5.7
E	3/2.7	8/12.1	11/6.3
Chose not to respond	77/70.4	24/36.4	101/57.4

Response to question 38, "How do you feel about the time you have to do your work"...the data shows:

Response Choice	Population A no./%	Population B no./%	Population A&B no./%
A	24/21.8	7/10.6	31/17.6
B	43/39.1	32/48.5	75/42.6
C	18/16.4	11/16.7	29/16.5
D	2/1.8	4/6.1	6/3.4
E	22/20.0	12/18.2	34/19.3
Chose not to respond	1/.9	0/0	1/0.6

Response to question 39, "With respect to amount of time you spend at 'work'"...the data shows:

Response Choice	Population A no./%	Population B no./%	Population A&B no./%
A	34/30.9	8/12.1	42/23.9
B	49/44.5	51/77.13	100/56.8
C	2/1.8	0/0	2/1.1
D	18/16.4	3/4.5	21/11.9
E	6/5.5	4/6.1	10/5.7
Chose not to respond	1/.9	0/0	1/.06

In response to question 40, "Of the situations given, which of these best describes your work routine"...the results show:

Response Choice	Population A no./%	Population B no./%	Population A&B no./%
A	67/60.9	33/50.0	100/56.8
B	39/35.5	31/47.0	70/39.8
C	1/.9	0/0	1/.6
D	2/1.8	2/3.0	4/2.3
E	0/0	0/0	0/0
Chose not to respond	1/.9	0/0	1/0.6

In response to question 41, "You are about to propose a new policy which you feel is good for the organization. You intuitively believe, however, that you will have difficulty

convincing certain segments of the organization. You are further aware that unless you receive almost across the board concurrence, top management will not institute the policy. How would you go about 'seeing to it' that your policy is accepted"...the results are:

Response Choice	Population A no./%	Population B no./%	Population A&B no./%
A	4/3.6	1/1.5	5/2.8
B	18/16.4	20/30.3	38/21.6
C	63/57.3	41/62.1	104/59.1
D	8/7.3	3/4.5	11/6.3
E	1/.9	0/0	1/.6
Chose not to respond	16/14.5	1/1.5	17/9.7

In response to question 42, "As a decision maker"...the data shows:

Response Choice	Population A no./%	Population B no./%	Population A&B no./%
A	15/13.6	5/7.6	20/11.4
B	7/6.4	1/1.5	8/4.5
C	67/60.9	56/84.8	123/69.9
D	2/1.8	0/0	2/1.1
E	15/13.6	4/6.1	19/10.8
Chose not to respond	4/3.6	0/0	4/2.3

In response to question 43, "Assume you are considering several proven company executives for a promotion. However, you consider the best among them to be a 'maverick' with respect to his management/leadership style. If you decide on selecting the 'maverick' would you"...this data shows:

Response Choice	Population A no./%	Population B no./%	Population A&B no./%
A	3/2.7	0/0	3/1.7
B	5/4.5	2/3.0	7/4.0
C	32/29.1	30/45.5	62/35.2
D	64/58.2	32/48.5	96/54.5
E	5/4.5	2/3.0	7/4.0
Chose not to respond	1/.9	0/0	1/.6

In response to question 44, "If you have just been promoted two levels above your present position (same company), you would function at this new level"...the results show:

Response Choice	Population A no./%	Population B no./%	Population A&B no./%
A	12/10.9	6/9.1	18/10.2
B	18/16.4	8/12.1	26/14.8
C	17/15.5	18/27.3	35/19.9
D	27/24.5	18/27.3	45/25.6
E	11/10.0	15/22.7	26/14.8
Chose not to respond	25/22.7	1/1.5	26/14.8

In response to question 45, "As you reflect on your career, judge the present, and postulate about the future regarding the relationship with your family, family responsibilities and demands of your present position, how would you best describe the way in which the relationship exists or developed"...the data shows:

Response Choice	Population A no./%	Population B no./%	Population A&B no./%
A	36/32.7	22/33.3	58/33.0
B	20/18.2	13/19.7	33/18.8
C	27/24.5	17/25.8	44/25.0
D	9/8.2	3/4.5	12/6.8
E	17/15.5	11/16.7	28/15.9
Chose not to respond	1/.9	0/0	1/.6

In response to question 46, "In a position that you feel is not exactly what you want"...the data shows:

Response Choice	Population A no./%	Population B no./%	Population A&B no./%
A	5/4.5	1/1.5	6/3.4
B	0/0	1/1.5	1/.6
C	14/12.7	27/40.9	41/23.3
D	64/58.2	31/47.0	95/54.0
E	18/16.4	4/6.1	22/12.5
Chose not to respond	9/8.2	2/3.0	11/6.3

In response to question 47, "You accepted employment with your present company"...the data shows:

Response Choice	Population A no./%	Population B no./%	Population A&B no./%
A	25/22.7	25/37.9	50/28.4
B	15/13.6	8/12.1	23/13.1
C	36/32.7	26/39.4	62/35.2
D	13/11.8	0/0	13/7.4
E	11/10.0	6/9.0	17/9.7
Chose not to respond	10/9.1	1/1.5	12/6.3

In response to question 48, "When you take a vacation"...the results point out the following:

Response Choice	Population A no./%	Population B no./%	Population A&B no./%
A	19/17.3	7/10.6	26/14.8
B	32/29.1	15/22.7	47/26.7
C	37/33.6	32/48.5	69/39.2
D	16/14.3	9/13.6	25/14.2
E	4/3.6	0/0	4/2.3
Chose not to respond	2/1.8	3/4.5	5/2.8

In response to question 49, "How good is your health"...
the data shows the following:

Response Choice	Population A no./%	Population B no./%	Population A&B no./%
A	2/1.8	0/0	2/1.1
B	49/44.5	31/47.0	80/45.5
C	30/27.3	23/34.8	53/30.1
D	14/12.7	5/7.6	19/10.8
E	14/12.7	7/10.6	21/11.9
Chose not to respond	1/.9	0/0	1/.6

APPENDIX E

Presentation of Data

This appendix presents an unaltered, unbiased condensed display of data extracted from the informational gathering document (IGD) for both the civilian and federal government executives (populations A and B). This unbiased format will permit the viewer to interpret the data as he or she desires. The data was derived by utilizing the Statistical Package for Social Sciences (SPSS) program run on the IBM 360 computer system. Appendix G and H depict the information in a detailed (histogram) format.

Question 2 was designed to permit respondents to fill in the present title of their position. A wide range of titles were given. They are shown in Appendix D just as they appeared on the returned IGD questionnaire.

Population "A" informants having similar titles were grouped, in the authors judgment, according to position designations and responsibilities. The numbers in parenthesis indicate the number of informants of like positions or titles. They were placed in five groups for coding and ease of data handling. This procedure could not be followed in the case of the supergrade federal employees (GS 16-18) because variations in responses from this population showed little similarity in titles or levels of responsibility. Their position, by titles, are shown in Appendix D, as they were recorded on the questionnaire. An attempt to categorize them by salary range or "felt fair pay" was initiated,

but later dropped because in each case they were all receiving the maximum monetary remuneration under present statutory authorization (\$36,000).

APPENDIX F

Student's t Distribution the Chi-Square and Test of Independence

The Chi-square and Student's t Distribution were used to determine the significance of differences between the two independent groups. The χ^2 test was used in two ways. First, it tested the significant differences between the two independent groups. Secondly, it tested the significant difference of both populations combined compared to the writings of current management literature. Management literature estimates (L.E.) were given a percentage value for quantification purposes. Using collective judgments and estimates percentage values were determined by the authors in conjunction with a group of conferees composed of graduate management students, from the Naval Postgraduate School, Monterey, California, they also based their judgments on management literature and personal experience.

The χ^2 test was used to determine the significance of differences between the two independent groups; i.e., executives in the private sector (population A) and executives in the federal government (population B). The null hypothesis under test was that the two groups would respond the same with respect to their response to the individual questions on the Executive Judgmental Perception Instrument. In other words, the two groups are the same with respect to response.

To test this hypothesis, the number of responses to each part of each question were counted for each group. The proportion

of responses from Population A were then compared with the proportion of responses from Population B.

The null hypothesis was tested by the chi-square distribution or "student" distribution as appropriate:

$$\chi^2 = \sum_{i=1}^r \sum_{j=1}^k \frac{(O_{i,j} - E_{i,j})^2}{E_{i,j}} \quad \text{and } t = \frac{\bar{X}_A - \bar{X}_B}{\sqrt{\frac{\sigma_A^2}{N_A} + \frac{\sigma_B^2}{N_B}}}$$

where

O_{ij} = observed number of cases categorized in the i^{th} row of the j^{th} column.

E_{ij} = number of cases expected under H_0 to be categorized in the i^{th} row of the j^{th} column.

The values of χ^2 yielded by the formula are distributed approximately as chi-square with $df = (r-1)(k-1)$, where r = the number of rows and k = the number of columns in the contingency table.

The expected values for each cell (E_{ij}) was found by multiplying the two marginal totals common to a particular cell, and they by dividing this product by the total number of cases.

Note that if the observed values are in close agreement with the expected values, the differences ($O_{ij} - E_{ij}$) will be small, and consequently the value of χ^2 will be small. However, if some or many of the differences are large, then the value of χ^2 will also be large. The larger is χ^2 , the more likely it is that the two groups differ with respect to the classifications.

The Student's t Distribution test was used to determine the significance of difference of the means between Population A and B where appropriate:

t = is a distribution of a quotient of certain random variables

V = degrees of freedom

\bar{x} = mean

σ^2 = standard deviation squared or variance

N = number of valid observations

A = population A

B - population B

The statistical significant level (95%) was used for inspection within percentile values (t_p) for Student's t Distribution and $\chi^2 .95$ for chi-squared distribution.

The construction and desired response precluded a complete analysis of all questions by either the chi-square or student's t examination.

It should also be noted that the test will tell only whether or not the two groups are dissimilar. It will not tell the degree of association or the direction of dependency.

For the sake of data analysis, the questions are grouped into trait categories in this appendix. Note that in some cases it was necessary (where the numbers of responses per population was less than 5) to combined responses for statistical validity.

DECISION-MAKING

Question 26

R	A	B	T	χ^2_1	R_1	T_1	%	L.E.	χ^2_2
1,4,5	16(23.72)	22(14.28)	38	6.69	1	33	.20	34.60	.07
2	57(47.45)	19(28.55)	76	5.12	2	76	.65	112.45	20.02
3	35(36.83)	24(22.17)	59	.24	3	59	.05	8.65	293.08
	108	65	173		4.5	5	.10	17.30	8.75
						173		173.00	321.92

R = response choice

A = population A

B = population B

T = Total number of responses

χ^2_1 = value between populations

R_1 = response choice

T_1 = total number of responses per choice

% = expected percentage value placed on responses according to management literature estimates

LE= Literature estimates

χ^2_2 = value of combined populations compared with management literature estimates $\frac{(T_1 - L.E.)^2}{L.E.}$

DECISION-MAKING

Question 41

R	A	B	T	χ^2_1	R_1	T_1	%	L.E.	χ^2_2
1,4,5	10(8.17)	4(5.83)	14	.98	1	5	.05	7.95	1.09
2	18(22.17)	20(15.83)	38	1.88	2	38	.30	47.70	1.97
3	63(60.67)	41(43.33)	104	.21	3	104	.50	79.50	7.55
	91	65	156	3.07	4	11	.10	15.90	1.51
					5	1	.05	7.5	6.08
						159		173	18.20

DECISION-MAKING

Question 42

R	A	B	T	χ^2_1	R_1	T_1	%	L.E.	χ^2_2
1	15(12.33)	5(7.67)	20	1.51	1	20	.10	17.20	.46
2,4,5	24(17.87)	5(11.13)	29	5.48	2	8	.05	8.60	.04
3	67(75.80)	56(47.20)	123	2.66	3	123	.60	103.20	3.80
	106	66	172	9.65	4	2	.05	8.60	5.07
					5	19	.20	34.40	6.89
						172		172	16.26

DECISION-MAKING

Question 43

R	A	B	T	χ^2_1	R_1	T_1	%	L.E.	χ^2_2
1,2,5	13(10.59)	4(6.41)	17	1.45	1	3	.05	8.75	3.78
3	32(38.62)	30(23.38)	62	3.01	2	7	.10	17.50	6.30
4	64(59.79)	32(36.21)	96	.79	3	62	.50	87.50	7.43
	109	66	175	5.25	4	96	.35	61.25	19.72
					5	7	0	0.0	7.00
									44.23

DECISION-MAKING

Question 44

R	A	B	T	χ^2_1	R_1	T_1	%	L.E.	χ^2_2
1	12(10.20)	6(7.80)	18	.73	1	18	.05	7.50	14.70
2	18(14.73)	8(11.27)	26	1.67	2	26	.05	7.50	45.63
3	17(9.63)	18(15.17)	35	6.17	3	35	.25	37.50	.17
4	27(25.50)	18(19.50)	45	.20	4	45	.55	82.50	17.05
5	11(14.73)	15(11.27)	26	2.18	5	26	.10	15.00	8.07
	85	65	150	10.95		150		150	85.62

INNOVATION

Question 27

R	A	B	T	χ^2_1	R_1	T_1	%	L.E.	χ^2_2
1,4,5	39(29.93)	9(18.07)	48	7.30	1	39	.35	59.50	7.06
2	39(41.78)	28(25.22)	67	.49	2	67	.32	54.40	2.92
3	28(34.29)	27(20.71)	55	3.06	3	55	.28	47.60	1.15
	106	64	170	10.85	4	7	.03	5.1	.70
					5	2	.02	3.4	.58
								170	12.41

INNOVATION

Question 28

R	A	B	T	χ^2_1	R_1	T_1	%	L.E.	χ^2_2
1	30(26.12)	15(18.87)	45	1.37	1	27	.10	17.70	4.89
2	23(23.22)	17(16.67)	40	.00	2	9	.08	14.16	1.88
3	14(20.32)	21(14.67)	35	4.73	3	72	.50	88.50	3.07
4	23(20.32)	12(14.67)	35	.84	4	68	.20	53.10	4.18
	90	65	155	6.94	5	1	.02	3.54	1.82
								177	15.83

INNOVATION
Question 29

R	A	B	T	X_1^2	R_1	T_1	%	L.E.	X_2^2
1, 5	41(34.07)	15(21.93)	56	3.60	1	4	.02	3.32	.14
2	11(16.43)	16(10.57)	27	4.58	2	27	.18	29.88	.28
3	30(29.81)	19(19.19)	49	.00	3	49	.25	41.50	1.36
4	19(20.69)	15(13.31)	34	.35	4	34	.35	58.10	9.99
	101	65	166	8.53	5	52	.30	49.80	.10
					166				11.87

INNOVATION
Question 30

R	A	B	T	X_1^2	R_1	T_1	%	L.E.	X_2^2
1,2	11(12.47)	9(7.52)	20	.46	1	18	.04	6.80	18.45
3	24(28.68)	22(17.31)	46	2.03	2	2	.1	1.70	.05
4	29(36.79)	20(22.21)	59	.35	3	46	.40	68.00	7.12
5	32(28.06)	13(16.94)	45	1.47	4	59	.35	59.50	.00
	106	64	170	4.31	5	45	.20	34.00	3.56
					170			170	29.18

INNOVATION
Question 31

R	A	B	T	X_1^2	R_1	T_1	%	L.E.	X_2^2
1,2,5	22(21.10)	12(12.89)	34	.10	1	27	.10	17.70	4.88
3	42(46.68)	30(27.31)	72	.42	2	9	.08	14.16	1.88
4	44(42.20)	24(25.79)	68	.10	3	72	.50	88.50	3.07
	108	66	174	.62	4	68	.30	53.10	4.18
					5	1	.02	3.54	1.82
					174			174	15.83

MANAGEMENT OF TIME
Question 38

R	A	B	T	X_1^2	R_1	T_1	%	L.E.	X_2^2
1,4	26(23.05)	11(13.95)	37	1.00	1	31	.27	47.25	5.59
2	43(46.71)	32(28.29)	75	.78	2	75	.45	78.75	.18
3	18(18.06)	11(10.94)	29	.00	3	29	.23	43.75	4.97
5	22(21.18)	12(12.82)	34	.08	4	6	.03	5.25	.11
	109	66	175	1.86	5	34	.20	35.00	.03
					175				10.88

MANAGEMENT OF TIME

Question 39

R	A	B	T	χ_1^2	R_1	T_1	%	L.E.	χ_2^2
1	34(26.16)	8(15.84)	42	6.23	1	42	.20	35.00	1.40
2	49(62.29)	51(37.71)	100	7.52	2	100	.35	61.25	24.52
3,4,5	26(18.86)	7(12.45)	33	5.09	3	2	.02	3.50	.64
109	66	175	18.84		4	21	.40	70.00	34.30
					5	10	.03	5.25	4.30
					175			175	65.16

MANAGEMENT OF TIME

Question 40

R	A	B	T	χ_1^2	R_1	T_1	%	L.E.	χ_2^2
1	67(62.29)	33(37.71)	100	.94	1	100	.60	105.00	.24
2,3,4,5	42(46.71)	33(28.26)	75	1.27	2	70	.33	57.75	2.60
109	66	175	2.21		3,4,5	5	.02	3.50	.64
					175			175	3.48

COMMUNICATIONS

Question 23

R	A	B	T	χ_1^2	R_1	T_1	%	L.E.	χ_2^2
1	6(8.71)	8(5.29)	14	2.23	1	14	.05	8.60	3.39
2	18(31.73)	33(19.27)	51	15.72	2	51	.33	56.76	.58
3	36(29.86)	12(18.14)	48	3.34	3	48	.30	51.60	.25
4	24(19.28)	7(11.72)	31	3.05	4	31	.17	29.24	.10
5	23(17.42)	5(10.58)	28	4.73	5	28	.15	25.80	.18
107	65	172	29.08		172			172	4.50

COMMUNICATIONS

Question 24

R	A	B	T	χ_1^2	R_1	T_1	%	L.E.	χ_2^2
1,5	22(16.86)	5(10.14)	27	4.17	1	2	.01	1.73	.04
2	6(9.99)	10(6.01)	16	4.24	2	16	.04	6.92	11.91
3	23(29.34)	24(17.66)	47	3.65	3	47	.20	34.60	4.44
4	57(51.82)	26(31.18)	83	1.38	4	83	.35	60.55	8.32
108	65	173	13.44		5	25	.40	69.20	28.23
					173			173	52.94

COMMUNICATIONS

Question 25

R	A	B	T	χ^2_1	R_1	T_1	%	L.E.	χ^2_2
1	13(12.49)	7(7.51)	20	.05	1	20	.06	10.38	8.92
2	39(33.71)	15(20.29)	54	2.20	2	54	.31	53.63	.00
3	27(31.21)	23(18.79)	50	1.51	3	50	.35	60.55	1.84
4	12(13.73)	10(8.27)	22	.58	4	22	.13	22.49	.01
5	17(16.86)	10(10.14)	27	.00	5	27	.15	25.95	.04
				108	65	173	4.34	173	10.81

COMMUNICATIONS

Question 32

R	A	B	T	χ^2_1	R_1	T_1	%	L.E.	χ^2_2	
1,3,4	23(20.40)	9(11.60)	32	.91	1,4	6	.03	5.13	.15	
2	20(21.67)	14(12.33)	34	.35	2	34	.45	76.95	23.97	
5	66(66.93)	39(38.07)	105	.03	3	20	.12	20.52	.01	
				171	1.30	5	105	.40	68.40	19.58
						171		171	43.71	

COMMUNICATIONS

Question 33

R	A	B	T	χ^2_1	R_1	T_1	%	L.E.	χ^2_2			
1,4	19(19.24)	12(11.76)	31	.00	1	1	.01	1.74	.31			
2	9(11.79)	10(7.21)	19	1.74	2	19	.05	8.70	12.19			
3	36(36.62)	23(22.38)	59	.03	3	59	.24	41.76	7.12			
5	44(40.34)	21(24.66)	65	.88	4	30	.30	52.20	9.44			
				108	66	174	2.65	5	65	.40	69.60	.30
						174					29.36	

MOBILITY
Question 9

	A	B
MEAN	23,245	17,030
VARIANCE	11,287	10,012
N	110	66
<hr/>		
t =	3.79	

MOBILITY
Question 16

R	A	B	T	X_1^2	R_1	T_1	%	L.E.	X_2^2
1	25(19.53)	5(10.47)	30	4.39					
2	26(24.73)	12(13.27)	38	.19					
3	26(26.04)	14(13.96)	40	.00					
4	12(16.27)	13(8.73)	25	3.21					
5	14(12.37)	5(6.63)	19	.62					
6-13	7(11.07)	10(5.93)	17	4.29					
	110	59	169	12.70					

MOBILITY
Question 17

	A	B
MEAN	24.836	21.016
VARIANCE	93.184	45.381
N	110	64
t =		3.06

MOBILITY
Question 19

	A	B
MEAN	1.882	1.875
VARIANCE	.105	.111
N	110	64
t =		.137

MOBILITY
Question 20

	A	B
MEAN	1.077	1.250
VARIANCE	.077	.5
N	13	8
t =		.662

MOBILITY
Question 21

R	A	B	T	χ^2_1	R_1	T_1	%	L.E.	χ^2_2
1	14(17.89)	14(10.11)	28	2.34					
2	46(35.15)	9(19.85)	55	9.28					
3	6(8.31)	7(4.69)	13	1.78					
4	34(36.43)	23(20.57)	57	.45					
5	8(10.22)	8(5.78)	16	1.33					
	108	61	169	15.18					

MOBILITY
Question 47

R	A	B	T	χ^2_1	R_1	T_1	%	L.E.	χ^2_2
1	25(30.30)	25(19.70)	50	.94	1	50	.15	24.75	25.76
2	15(13.94)	8(9.06)	23	.25	2	23	.15	24.75	.12
3	36(37.58)	26(24.42)	62	.23	3	62	.45	74.25	2.02
4,5	24(18.18)	6(11.82)	30	4.73	4	13	.20	33.00	12.12
	100	65	165	6.15	5	17	.05	8.25	9.28
						165		165	49.30

PSYCHIE/STATUS
Question 34

	A	B
MEAN	4.873	1.985
VARIANCE	4.644	0.076
N	110	67

Note: t test is inappropriate to this question dealing with salary inasmuch as population B is limited to a maximum of \$36,000 annually by Public Law.

PSYCHIE/STATUS
Question 35

	A	B
MEAN	1.318	1.621
VARIANCE	.219	.239
N	107	66

t =

6.18

PSYCHIE/STATUS

Question 36

	A	B
MEAN	3.655	1.106
VARIANCE	13.219	3.327
N	110	66
t =		6.18

PSYCHIE/STATUS

Question 37

R	A	B	T	χ^2_1	R ₁	T ₁	%	L.E.	χ^2_2
1,4,5	7(10.12)	16(12.88)	23	1.72	1	2	.05	3.75	.82
2	19(15.40)	16(19.60)	35	1.50	2	35	.30	22.50	6.94
3	7(7.48)	10(9.52)	17	.06	3	17	.45	33.75	8.31
33	42	75	3.28	4	10	.10	7.50	.83	
					5	11	.10	7.50	1.63
					75	75		18.53	

PSYCHIE/STATUS

Question 46

R	A	B	T	χ^2_1	R ₁	T ₁	%	L.E.	χ^2_2
1,2,5	23(17.75)	6(11.25)	29	4.00	1	6	.05	8.25	.61
3	14(25.10)	27(15.90)	41	12.66	2	1	.02	3.30	1.60
4	64(58.15)	31(36.85)	95	1.52	3	41	.53	87.45	24.67
101	64	165	18.18	4	95	.30	49.50	41.82	
					5	22	.10	16.50	1.83
					165			70.53	

HEALTH
Question 49

R	A	B	T	χ^2_1	R ₁	T ₁	%	L.E.	χ^2_2
1,4	16(13.08)	5(7.92)	21	1.73	1	2	.05	8.75	5.21
2	49(49.83)	31(30.17)	80	.04	2	80	.55	96.25	2.74
3	30(33.01)	25(19.99)	53	.73	3	53	.20	35.00	9.26
5	14(13.08)	7(7.92)	21	.17	4	19	.10	17.50	.13
109	66	175	2.67	5	21	.05	8.75	17.15	
					175	175		34.49	

JOB SECURITY

Question 48

R	A	B	T	χ^2_1	R_1	T_1	%	L.E.	χ^2_2
1	19(16.14)	7(9.86)	26	1.34	1	26	.10	17.30	4.38
2	32(29.17)	15(17.83)	47	.72	2	47	.20	34.60	3.76
3	37(42.83)	32(26.17)	69	2.09	3	69	.30	51.90	5.63
4,5	20(19.86)	12(12.14)	32	.01	4	25	.35	60.55	20.87
	108	66	174	4.16	5	7	.05	8.65	.31
						174			34.95

FAMILY Question 45

R	A	B	T	χ^2_1	R_1	T_1	%	L.E.	χ^2_2
1	36(36.13)	22	58	.00	1	58	.40	70.00	2.06
2	20(20.55)	13	33	.04	2	33	.20	35.00	.11
3	27(27.41)	17	44	.02	3	44	.25	43.75	.00
4,5	26(27.41)	14	40	.15	4	12	.05	8.75	1.21
	109	66	175	.21	5	28	.10	17.50	6.30
						175		175	9.68

FAMILY Question 12

R	A	B	T	χ^2_1	R_1	T_1	%	L.E.	χ^2_2
1	3(2.50)	1(1.50)	4	.27					
2	13(8.75)	1(5.25)	14	5.50					
3	94(97.50)	62(58.50)	156	.35					
4,5	0(1.25)	2(.75)	2	3.33					
	110	66	176	9.44					

FAMILY Question 13

	A	B
MEAN	1.211	1.077
VARIANCE	.187	.072
N	109	65
t =		2.52

MISC/BIOGRAPHICAL

Question 3

	A	B
MEAN	4.421	3.712
VARIANCE	6.435	5.839
N	107	66
t =		1.841

MISC/BIOGRAPHICAL

Question 4

	A	B
MEAN	55.755	50.439
VARIANCE	54.334	44.373
N	110	66
t =		4.926

MISC/BIOGRAPHICAL

Question 5

	A	B
MEAN	1.927	1.924
VARIANCE	.069	.071
N	109	66
t =		.462

MISC/BIOGRAPHICAL

Question 7

	A	B
MEAN	181.343	172.894
VARIANCE	442.939	530.558
N	108	66
t =		2.425

MISC/BIOGRAPHICAL

Question 8

	A	B
MEAN	4.991	4.909
VARIANCE	.009	.299
N	110	66
t =		1.22

MISC/BIOGRAPHICAL

Question 9

	A	B
MEAN	23.245	17.030
VARIANCE	127.398	100.245
N	110	66
<hr/>		
t =		3.79

MISC/BIOGRAPHICAL

Question 10

R	A	B	T	χ^2_1	R_1	T_1	%	L.E.	χ^2_2
1	7(5.66)	2(3.34)	9	.85					
2	25(20.74)	8(12.26)	33	2.36					
3	44(37.71)	16(22.29)	60	2.82					
4,5	14(10.69)	3(6.31)	17	2.76					
6	10(18.86)	20(11.14)	30	7.05					
7,8	10(16.34)	16(9.66)	26	6.62					
	110	65	175	25.28					

MISC/BIOGRAPHICAL

Question 11

R	A	B	T	χ^2_1	R_1	T_1	%	L.E.	χ^2_1
1	30(33.47)	24(20.53)	54	.95					
2	10(17.36)	18(10.64)	28	8.21					
3	29(25.42)	12(15.58)	41	1.33					
4	33(27.27)	11(16.73)	44	3.17					
5,6	3(1.86)	0(1.14)	3	1.84					
7	1(.62)	0(.38)	1	.76					
	106	65	171	16.26					

MISC/BIOGRAPHICAL

Question 14 (sons)

	A	B
MEAN	1.988	1.981
VARIANCE	1.165	.849
N	86	54
<hr/>		
t =		.040

MISC/BIOGRAPHICAL
Question 14 (daughters)

	A	B
MEAN	1.932	2.058
VARIANCE	1.168	1.506
N	88	52
<hr/>		
t =		.61

MISC/BIOGRAPHICAL
Question 15

R	A	B	T	χ^2_1	R_1	T_1	%	L.E.	χ^2_2
1,2,3	15(20.89)	18(12.11)	33	4.53					
4,5,6	35(33.56)	18(15.14)	53	.13					
7	41(25.96)	10(18.71)	51	12.77					
8,9,10	16(20.26)	16(11.74)	32	2.44					
<hr/>									
	107	62	169	19.87					

MISC/BIOGRAPHICAL*
Question 18 (expanded)

R	A	B	T	χ^2_1	R_1	T_1	%	L.E.	χ^2_2
0	3(3.13)	2(.75)	5	2.09					
1	7(10.00)	9(6.00)	16	2.40					
2	11(18.13)	18(10.88)	29	7.46					
3	3(3.75)	3(2.25)	6	.40					
4	7(5.00)	1(3.00)	8	2.13					
5	12(14.38)	11(8.63)	23	1.04					
6	31(26.25)	11(15.75)	42	2.29					
7	18(13.75)	4(8.25)	22	3.50					
8	14(12.50)	6(7.50)	20	.48					
9	4(3.13)	1(1.88)	5	.65					
<hr/>									
	110	66	176	22.44					

*See Appendix , page for explanation of expanded coding)

MISC/BIOGRAPHICAL
Question 18

R	A	B	T	χ^2_1	R_1	T_1	%	L.E.	χ^2_2
1	7(10.00)	9(6.00)	16	2.40					
2	11(18.13)	18(10.88)	29	7.46					
3	3(3.75)	3(2.25)	6	.40					
4	7(5.00)	1(3.00)	8	2.13					
5	82(73.13)	35(43.88)	117	2.87					
<hr/>									
	110	66	176	15.26					

MISC/BIOGRAPHICAL

Question 22

	A	B
MEAN	1.036	1.000
VARIANCE	.035	0
N	110	65
<hr/>		
t =		.48

APPENDIX G

Individual Population Histograms

Each of the forty-nine questions used in the "Executive Judgmental Perception" were plotted as a histogram to display the frequency of responses. Question fourteen was expanded into three histograms numbered 141 (sons), 142 (daughters), and 143 (no children) to definitively determine family composition. The word "exec" or "federal" following the word "file", on the top line of each histogram and corresponds with population A and B respectively. On the second line, the word VAR -- followed by a condensed statement of the question from the informational gathering document (IGD) appears for identification. "VAR" corresponds with the question number of the (IGD). Refer to Appendix B for a complete statement of the question.

In the left most column the word "code" appears and corresponds to the alternatives to each question, i.e., code 1, 2, 3, etc, corresponds to item answers A, B, C, etc. Frequency distributions are displayed horizontally. The integer in parenthesis indicates the total number of responses. The letters A, B, C, as appropriate or a word identifying the response will be printed directly beneath the frequency response. When no detector was selected, the response is not shown.

A percentage index is provided on the bottom line (absoissa) and may be compared horizontally to the desired response frequency. Statistical information is provided beneath each histogram.

Histograms are presented alternatively (question 1, population A; question 1, population B) to facilitate comparative analysis. Refer to Appendix F for Chi-square and "Student's" t distribution tests between populations.

VAR001 EMPLOYER

CODE

I
I
I
I

MILITARY

(66)

FREQUENCY

0 20 40 60 80 100

MEAN	1.000	STD. EER	0.0	MEDIAN	1.000
MODE	1.000	STD. DEV	0.0	VARIANCE	0.0
RANGE	0.0	MINIMUM	1.000	MAXIMUM	1.000
VALID CASES	66	MISSING CASES	0		

VAR002 POSITION HELD

CODE

(74) *****

GROUP 1

2. I** (GROUP 2)

GROUP 2

3. *****(201

GROUP 3

4. (8)

GROUP 4

5. ¹** I GROUP 1)

GROUP 1

0.1*** (5)

(MISSING)

100
80
60
40
20
0
FREQUENCY

MEAN	1.667	STD ERR	0.106	MEDIAN	1.209
MODE	1.000	STD DEV	1.089	VARIANCE	1.186
KURTOSIS	-0.002	SKENNESS	1.223	RANGE	4.000

KURTOSIS

KURTUSIS
MYNTMIM

MINIMUM

0.106

609
680
108
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01

1.1.0.2233

1.223
1.200

MEDIAN

**MEDIAN
VARIANCE**

VALID CASES

MISSING CASES

VAR002 POSITION HELD

CODE

2.

(42)

MILITARY

0.
(MISSING)

(66)

0
FREQUENCY

VALID CASES

0

MISSING CASES

66

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VAR003	LOCAT ION
CODE	
2.	***** EASTERN (42)
3.	***** 1) SOUTHEAST
4.	***** 2) NORTH CENTRAL
7.	***** SOUTHWEST (20)
10.	***** 1) OVERSEAS
	0 FREQUENCY

MEAN	3.712	STD ERR	0.297	MEDIAN	2.286
MODE	2.000	STD DEV	2.416	VARIANCE	5.839
KURTOSIS	-1.077	SKWENESS	0.816	RANGE	8.000
MINIMUM	2.000	MAXIMUM	10.000		
VALID CASES	66	MISSING CASES	0		

VAR004

AGE

CODE

33.	I ***** (1) I I I
36.	I ***** (1) I I I
40.	I ***** (1) I I I
41.	I ***** (1) I I I
43.	I ***** (2) I I I
44.	I ***** (2) I I I
45.	I ***** (2) I I I
47.	I ***** (4) I I I
48.	I ***** (3) I I I
49.	I ***** (4) I I I
50.	I ***** (4) I I I

VAR004

AGE

CODE

37. I ***** (1)

38. I ***** (1)

39. I ***** (4)

40. I ***** (1)

41. I ***** (2)

42. I ***** (1)

43. I ***** (3)

44. I ***** (2)

45. I ***** (1)

46. I ***** (1)

47. I ***** (3)

48. I
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51. ***** (1)

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54. ***** (4)

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56. ***** (6)

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59. ***** (3)

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60. ***** (1)

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FREQUENCY

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MEAN	50.439	STD EPR	0.820	MEDIAN	51.667
MODE	50.000	STD DEV	6.651	VARIANCE	44.373
KURTOSIS	-0.702	SKEWNESS	-0.214	RANGE	26.000
MINIMUM	37.000	MAXIMUM	63.000		
VALID CASES	66	MISSING CASES	0		

VAR005 SEX

CODE

I. I** (FEMALE 8)

2. I MALE (101)

(MISSING) 0 (1)

Frequency	i
0	10
40	15
80	20
120	25
160	30
200	190

MEAN	1.927	STD ERR	0.025	MEDIAN	1.960
MODE	2.000	STD DEV	0.262	VARIANCE	0.069
KURTOSIS	8.597	SKEWNESS	-.3.257	RANGE	1.000
MINIMUM	1.000	MAXIMUM	2.000		
VALID CASES	109	MISSING CASES	1		

VAR006

HEIGHT

CODE

60.

(1)

61.

(1)

62.

(1)

64.

(2)

66.

(1)

67.

(5)

68.

(6)

69.

(6)

70.

(22)

71.

(22)

72.

(17)

73. I***** (11)

74. ***** (8)

75. ***** (4)

76. *** (2)

77. ** (1)

FREQUENCY

0
10
20
30
40
50

MEAN	70.764
MODE	70.000
KURTOSIS	2.610
MINIMUM	60.000

STD ERR	0.271
STD DEV	2.844
SKEWNESS	-1.098
KURTOSIS	77.000

VALID CASES 110

MISSING CASES 0

MEDIAN	70.955
VARIANCE	8.090
RANGE	17.000

VAR007

WEIGHT

CODE

135. ***** (1)

139. ***** (1)

145. ***** (1)

149. ***** (1)

150. ***** (1)

154. ***** (1)

155. ***** (3)

156. ***** (1)

158. ***** (1)

160. ***** (7)

162. ***** (1)

163. I ***** (1)
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167. I ***** (1)
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169. I ***** (1)
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170. I ***** (8)
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174. I ***** (1)
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175. I ***** (10)
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176. I ***** (1)
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182. I ***** (1)
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185. I ***** ( 8)
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187. I ***** ( 1)
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189. I ***** ( 1)
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191. I ***** ( 1)
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195. I ***** ( 5)
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200. I ***** ( 5)
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205. I ***** ( 2)
      I I I
210. I ***** ( 2)
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215. I ***** ( 3)
      I I I
218. I ***** ( 2)
      I I I
220. I ***** ( 5)
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VAR007	WEIGHT
1	1
2	1
3	1
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10	1
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99	1
100	1

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135. I***** (2)

138. ***** (1)

139. ***** (1)

140. ***** (2)

142. ***** (1)

143. ***** (1)

145. ¹***** (2)

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155. *****(4)

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VAR009

TIME WITH PRESENT ORG

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32. I*****
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33. I*****
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34. I*****
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35. I*****
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36. I*****
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37. I*****
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38.	I ***** (3)
39.	I ***** (1)
40.	I ***** (2)
41.	I ***** (1)
42.	I ***** (2)
44.	I ***** (1)
45.	I ***** (1)
46.	I ***** (1)
50.	I ***** (1)
	I 0.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10 FREQUENCY

MEAN	23.245	STD ERR	1.076	MEDIAN	24.500
MODE	27.000	STD DEV	11.287	VARIANCE	127.397
KURTOSIS	-0.591	SKEWNESS	0.013	RANGE	49.000
MINIMUM	1.000	MAXIMUM	50.000		
VALID CASES	110	MISSING CASES	0		

VAR009

TIME WITH PRESENT ORG

CODE

1.	***** (4)	
2.	***** (6)	
5.	***** (4)	
6.	***** (1)	
7.	***** (1)	
8.	***** (2)	
9.	***** (2)	
11.	***** (1)	
12.	***** (1)	
13.	***** (2)	
15.	***** (2)	

16. I
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17. I
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19. I
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20. I
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21. I
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22. I
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23. I
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24. I
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25. I
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26. I
***** (4)
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27. I
***** (1)
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28. I
***** (2)
I
I

VAR011 MAJOR

CODE

1. ***** (24)
HARD SCIENCE - ENGIN

2. ***** (18)
HARD SCIENCE - OTHER

3. ***** (12)
SOFT SCIENCE

4. ***** (11)
BUSINESS

0. ***** (1)
(MISSING)

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
FREQUENCY

MEAN	MODE	KURTOSIS	MINIMUM	VALID CASES	STD ERR	STD DEV	SKEWNESS	MAXIMUM	MISSING CASES	MEDIAN	VARIANCE	RANGE
2.154	1.000	-1.165	1.000	65	0.137	1.107	0.455	4.000	1	1.972	1.226	3.000

VAR012 MARITAL STATUS

CODE

1. I ** I (1) DIVORCED

2. I (1) DIVORCED AND REMARRIED

3. I MARRIED (62)

5. I ** (2) WIDOW OR WIDOWER

100
80
60
40
20
0
FREQUENCY

MEAN	3.015	STD ERR	0.055	MEDIAN	3.000
MODE	3.000	STD DEV	0.447	VARIANCE	0.200
KURTOSIS	15.734	SKEWNESS	1.104	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000		

VALID CASES	MISSING CASES	0
-------------	---------------	---

VAR013 TIMES MARRIED

CODE

*****I

2. ***** (21)

3. (1)

$$0.1111$$

(MISSING)

FREQUENCY

0 20 40 60 80 100

MEAN	1.211	STD ERR	0.041	MEDIAN	1.126
MODE	1.000	STD DEV	0.432	VARIANCE	0.187
KURTOSIS	1.937	SKWNESS	1.749	RANGE	2.000
MINIMUM	1.000	MAXIMUM	3.000		
VALID CASES	109	MISSING CASES	1		

VAR013	TIMES MARRIED
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
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23	23
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26	26
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30	30
31	31
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35	35
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41	41
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43	43
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62	62
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75	75
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78	78
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80	80
81	81
82	82
83	83
84	84
85	85
86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

CODE

***** (60) *****

2. *****(5)

	0	1
(MISSING)	1	1

(MISSING)

FREQUENCY

FREQUENCY

MEAN
MODE
KURTOSIS
MINIMUM

1171
1171
1171
1171

STD ERR
STD DEV
SKEWNESS
MAXIMUM

0.033
0.269
0.151
0.000

MEDIAN
VARIANCE
RANGE

1.042
1.072
1.000

VALID CASES

65

MISSING CASES

1

VAR141 SON

CODE

1. *****(34)

2. (31)

3. *****(12)

● 七七 (七七七七七七)

5. (1)

6. (1)

0.

(24)

(MISSING)

FREQUENCY

0
10
20
30
40
50

MEAN	1.988	STD ERR	0.116	MEDIAN	1.790
MODE	1.000	STD DEV	1.079	VARIANCE	1.165
KURTOSIS	1.345	SKEWNESS	1.202	RANGE	5.000
MINIMUM	1.000	MAXIMUM	6.000		

VALID CASES	86	MISSING CASES	24
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VAR143 NONE

CODE

1. ## (2)

64)

0.
(MISSING)

100
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60
40
20
0
FREQUENCY

MEAN
MODE
RANGE

MEAN
MODE
RANGEMEAN
MODE
RANGE

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110

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110

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110

STD
ERR

MINIMUM
DEV

STD
ERR

MINIMUM
DEV

STD
ERR

MINIMUM
DEV

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001

**MEDIAN
VARIANCE
MAXIMUM**

**MEDIAN
VARIANCE
MAXIMUM**

**MEDIAN
VARIANCE
MAXIMUM**

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101

00 00
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101

00 00
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101

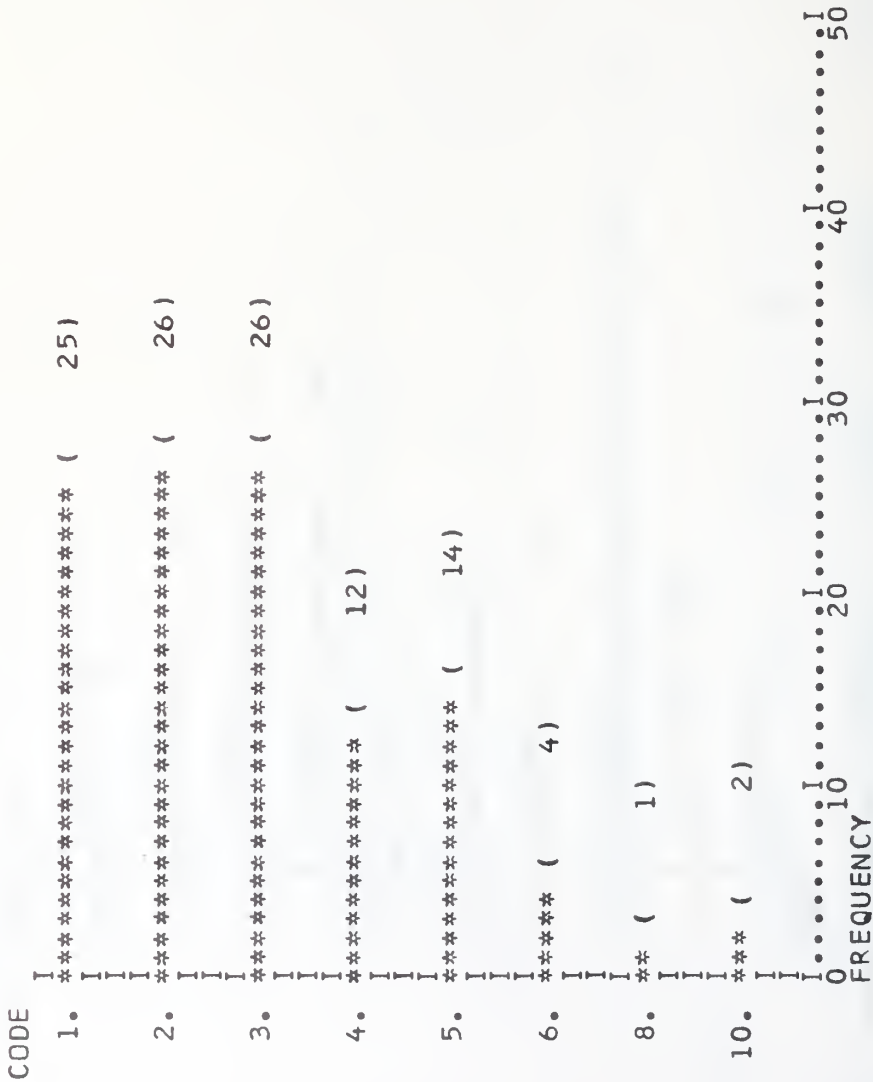
VALID CASES

2

MISSING CASES

64

VAR016 DIF ORG EMP BY



MEAN	2.955	STD ERR	0.172	MEDIAN	2.654
MODE	2.000	STD DEV	1.799	VARIANCE	3.236
KURTOSIS	2.751	SKEWNESS	1.363	RANGE	9.000
MINIMUM	1.000	MAXIMUM	10.000		
VALID CASES	110	MISSING CASES	0		

VAR017 LONGEST TIME ANY ORG

CODE

4. **** (1)

5. ***** (1)

(I) * * *

9. ***** (3)

10. ¹*** (1)

11. ***** (2)

12. ¹***** (3)

13. *****(11)

15. ¹***** (6)

16. ***** (3)

17. ***** (5)

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18. I*** ( 1)
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19. I*** ( 1)
    I I I I
20. I***** ( 11)
    I I I I *****
21. I*** ( 2)
    I I I I
22. I***** ( 6)
    I I I I *****
23. I*** ( 3)
    I I I I
24. I*** ( 3)
    I I I I
25. I***** ( 7)
    I I I I *****
26. I*** ( 5)
    I I I I *****
27. I***** ( 8)
    I I I I *****
28. I*** ( 5)
    I I I I *****
29. I*** ( 1)
    I I I I
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30. I***** (2)
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32. I***** (1)
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33. I***** (4)
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34. I***** (1)
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35. I***** (4)
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36. I***** (3)
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37. I***** (2)
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38. I***** (3)
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39. I***** (2)
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40. I***** (1)
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41. I***** (1)
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42. I***** (2)
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VAR017 LONGEST TIME ANY ORG

CODE

6.	I ***** (1) I I I
8.	I ***** (2) I I I
9.	I ***** (3) I I I
11.	I ***** (1) I I I
12.	I ***** (1) I I I
13.	I ***** (1) I I I
15.	I ***** (4) I I I
16.	I ***** (3) I I I
17.	I ***** (2) I I I
19.	I ***** (4) I I I
20.	I ***** (6) I I I

21. I ***** (3)
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22. I ***** (4)
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25. I ***** (4)
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26. I ***** (4)
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27. I ***** (2)
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28. I ***** (3)
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29. I ***** (1)
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32. I ***** (2)
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34. I ***** (1)
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41. I ***** (1)
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VAR020 TIMES CHANGED

CODE

1. ***** (12)

2. $\begin{pmatrix} * \\ * \\ * \end{pmatrix}$ (1)

0.
(MISSING) I
I *****
(97)

(MISSING)

100
80
60
40
20
0
FREQUENCY

FREQUENCY

MEAN	1.077	STD ERR	0.077	MEDIAN	1.042
MODE	1.000	STD DEV	0.277	VARIANCE	0.077
KURTOSIS	7.231	SKWNESS	3.051	RANGE	1.000
MINIMUM	1.000	MAXIMUM	2.000		

MODELS

KURTOSIS	WYNTMIN
7.231	1.600

MINIMUM 1.000

VALID CASES	13	MISSING CASES	97
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VAR020 TIMES CHANGED

CODE

1. ***** (7)

3. ***** (1)

0. ***** (58)

(MISSING)

0. ***** (58)
1. ***** (7)
3. ***** (1)
0. ***** (58)
FREQUENCY 20 40 60 80 100

MEAN 1.250 0.250 1.143
MODE 1.000 0.707 0.500
KURTOSIS 2.375 2.121 2.000
MINIMUM 1.000 3.000
VALID CASES 8 MISSING CASES 58

VAR022 CITIZEN

CODE

1. ***** (106)

YES

2. I^{**} (NO 4)

ON

FREQUENCY

FREQUENCY

MEAN	1.036	STD ERR	0.018	MEDIAN	1.019
MODE	1.000	STD DEV	0.188	VARIANCE	0.035
KURTOSIS	22.306	SKEDNESS	4.931	RANGE	1.000
MINIMUM	1.000	MAXIMUM	2.000		
VALID CASES	110	MISSING CASES	0		

VAR022 CITIZEN

CODE

65)

SEXY

(1)

(MISSING)

100
80
60
40
20
0
FREQUENCY

	MEAN	MODE	RANGE	STD DEV MINIMUM	ERR DEV MAXIMUM	MEDIAN	VARIANCE	MAXIMUM
1	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
2	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
3	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
4	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
5	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
6	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
7	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
8	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
9	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
10	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
11	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
12	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
13	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
14	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
15	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
16	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
17	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
18	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
19	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
20	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
21	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
22	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
23	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
24	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
25	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
26	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
27	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
28	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
29	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
30	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
31	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
32	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
33	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
34	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
35	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
36	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
37	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
38	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
39	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
40	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
41	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
42	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
43	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
44	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
45	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
46	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
47	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
48	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
49	1.000	1.000	0.0	0.0	0.0	0.0	0.0	1.000
50	1.000	1.000	0.0	0.0	0.0	0		

0.0

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VALID CASES	MISSING CASES	1
65	65	1

VAR023 ORG MEMBER OF

CODE

1. I ***** (6)

2. I B (18)

4. I D ***** (24)

5. I F I (231)

(MISSING) I **** (3)

[illegible]

MEAN	3.374	STD ERR	0.112	MEDIAN	3.319
MODE	3.000	STD DEV	1.162	VARIANCE	1.349
KURTOSIS	-0.825	SKEWNESS	-0.145	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000		
VALID CASES	107	MISSING CASES	3		

VAR024 NEW FRIENDS

CODE

1. I**I (A) 1)

2. (61)

3. 1***** (23)

4. I D ***** (57)

5. ***** (21)

(MISSING) 0.1** (2)

1
100
80
60
40
20
0
FREQUENCY

MEAN	3.843	STD ERR	0.080	MEDIAN	3.921
MODE	4.000	STD DEV	0.833	VARIANCE	0.695
KURTOSIS	0.560	SKWENESS	-0.670	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000		
VALID CASES	108	MISSING CASES	2		

VAR024

NEW FRIENDS

CODE

[illegible]

MEAN	3.338	STD EFR	0.108	MEDIAN	3.396
MODE	4.000	STD DEV	0.871	VARIANCE	0.759
KURTOSIS	-0.346	SKENNESS	-0.280	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000		
VALID CASES	65	MISSING CASES	1		

VAR025 PEOPLE SEEN DAILY

CODE

1. ***** (13)

2. (39)

3. (27)

4. (12)

5. (17)

0.
(MISSING) I*** (2)

[illegible]

	MEAN	STD	ERR	MEDIAN	2.574
	MODE	DEV	STD	VARIANCE	1.567
	KURTOSIS	SKWNESS		RANGE	4.000
	2.824		0.120		
	2.000		1.252		
	-0.846		0.448		

	VALID CASES	MISSING CASES	2
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VAR030 RELY ON FOR INITIAL INFO

CODE

1. ***** (10)

A

2. (1)

— 88 —

3. (24)

U

4. (39) ****

9

5. (32)

W

0.****(4)

(MISSING)

FREQUENCY

MEAN	3.774	STD ERR	0.114	MEDIAN	3.962
MODE	4.000	STD DEV	1.173	VARIANCE	1.377
KURTOSIS	0.430	SKWENESS	-1.006	RANGE	4.000

MODE

KURTOSIS

MINIMUM

VALID CASES	106	MISSING CASES	4
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VAR033 NUMBER CF JOURNALS

CODE

2. I ***** (9)

3. $i \rightarrow i$ (36)

4. I D ***** (19)

5. I I E (44)

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0. (MISSING) I *** ( 2)
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FREQUENCY

0
10
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40
50

MEAN	3.907	STD ERR	0.100	MEDIAN	3.974
MODE	5.000	STD DEV	1.037	VARIANCE	1.075
KURTOSIS	-1.334	SKEWNESS	-.0268	RANGE	3.000
MINIMUM	2.000	MAXIMUM	5.000		

1.075
3.000

43.0000

3.000

	VALID CASES	108	MISSING CASES	2
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VAR034	SALARY RANGE
1	1
2	2
3	3
4	4
5	5
6	6
7	7
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9	9
10	10
11	11
12	12
13	13
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83	83
84	84
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86	86
87	87
88	88
89	89
90	90
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92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

0.	I ***** (4) I I I I I	A
1.	I ***** (4) I I I I I	B
2.	I ***** (14) I I I I I	C
3.	I ***** (7) I I I I I	D
4.	I ***** (11) I I I I I	E
5.	I ***** (18) I I I I I	F
6.	I ***** (23) I I I I I	G
7.	I ***** (21) I I I I I	H
8.	I ***** (8) I I I I I	I

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FREQUENCY

MEAN	4.873	STD ERR	0.205	MEDIAN	5.333
MODE	6.000	STD DEV	2.155	VARIANCE	4.644
KURTOSIS	-0.689	SKEWNESS	-0.550	RANGE	8.000
MINIMUM	0.0	MAXIMUM	8.000		
VALID CASES	110	MISSING CASES	0		

VAR035 LESSER SALARY

CODE

731

✱ A

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34)

31

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100
80
60
40
20
0
FREQUENCY

MEAN	1.318	STD ERR	0.045	MEDIAN	1.233
MODE	1.000	STD DEV	0.468	VARIANCE	0.219
KURTOSIS	-1.402	SKEWNESS	0.779	RANGE	1.000
MINIMUM	1.000	MAXIMUM	2.000		

VAR036

HOW MUCH



MEAN	1.106	STD EPR	0.225	MEDIAN	0.267
MODE	0.0	STD DEV	1.824	VARIANCE	3.327
KURTOSIS	1.770	SKWNESS	1.638	RANGE	7.000
MINIMUM	0.0	MAXIMUM	7.000		
VALID CASES	66	MISSING CASES	0		

[illegible]

CODE

11

2. I B ***** (19)

3. (1) ***C***

4. $\frac{1}{3}$

5. I***E (31)

0.
(MISSING)

Frequency	I
0	0
10	1
20	1
30	1
40	1
50	1
60	1
70	1
80	1
90	1
100	1

MEAN	2.636	STD ERR	0.178	MEDIAN	2.316
MODE	2.000	STD DEV	1.025	VARIANCE	1.051
KURTOSIS	0.236	SKEWNESS	1.110	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000		
VALID CASES	33	MISSING CASES	77		

TIME YOU SPEND AT WORK

CODE

1. I ***** (34)

A

(*)



3. **** (2)

5

4. (18) ** ** ** **

- a

5. ***** (6)

3

0.***1)

(MISSING)

[illegible]

FREQUENCY

MEAN	2.202	STD ERR	0.116	MEDIAN	1.918
MODE	2.000	STD DEV	1.208	VARIANCE	1.459
KURTOSIS	-0.269	SKEWNESS	0.934	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000		

NUDE
KIP TOC TC

KURTOSIS

MINIMUM

STD ERR	0.116
STD DEV	1.208
SKEWNESS	0.934
MAXIMUM	5.000

STD ERR

KEYWORDS

SID DEVC SVENEC

MEDIAN
VARIANCE
RANGE

1.918
1.459
4.000

	VALID CASES	MISSING CASES	1
--	-------------	---------------	---

TIME YOU SPEND AT WORK

CODE

1. I A (8)

A

2. ***** (51)



4. *** (31

5. *****(4)

ۛ

100
80
60
40
20
FREQUENCY

MEAN	2.152	STD ERR	0.113	MEDIAN	1.990
MODE	2.000	STD DEV	0.916	VARIANCE	0.838
KURTOSIS	3.842	SKEWNESS	1.985	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000		

2000

02
04
08
•
23

NO
to
OC
•
7

STD ERR
STD DEV
SKEWNESS
MAXIMUM

0.015
113
11650
191800

VALID CASES	66	MISSING CASES
-------------	----	---------------

VAR040 WORK ROUTINE

CODE

I I A (67)

2. **I B I** ***** (39)

3. (1)

4. $\frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2}$ (D) 21

(MISSING)
0.
I**I
,
,
I)

100
80
60
40
20
0
FREQUENCY

MEAN	1.431	STD ERR	0.059	MEDIAN	1.313
MODE	1.000	STD DEV	0.614	VARIANCE	0.377
KURTOSIS	3.479	SKENNESS	1.582	RANGE	3.000
MINIMUM	1.000	MAXIMUM	4.000		

VALID CASES	109	MISSING CASES	1
-------------	-----	---------------	---

VAR040 WORK ROUTINE

CODE

1. ***** (33)

A

2. ***** (31)

B

4. ** (2)

D

0.....10.....20.....30.....40.....50
FREQUENCY

MEAN	1.561	STD ERR	0.081	MEDIAN	1.500
MODE	1.000	STD DEV	0.659	VARIANCE	0.435
KURTOSIS	3.124	SKWENESS	1.387	RANGE	3.000
MINIMUM	1.000	MAXIMUM	4.000		
VALID CASES	66	MISSING CASES	0		

VAR045 FAMILY RELATIONSHIP

CODE

I ***** I

(36) *****

A

2. ***** (20)

8

3. (27)

U

(6) ****

— D

5. (17)

W

0.0001

(MISSING)

1
0
FREQUENCY

MEAN	2.550	STD ERR	0.136	MEDIAN	2.425
MODE	1.000	STD DEV	1.424	VARIANCE	2.028
KURTOSIS	-1.057	SKEWNESS	0.456	RANGE	4.000

VAR046 POSITION YOU DO NOT WANT

CODE

— 11 —

2. $\mathbf{I}^{**}(\mathbf{B}^{**})$

3. I C I (27)

4. $I^1 I^D$ (31)

5. $\begin{pmatrix} 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 \end{pmatrix}$

(MISSING) 0. I*** (2)

1
0
FREQUENCY

MEAN	3.563	STD ERR	0.089	MEDIAN	3.597
MODE	4.000	STD DEV	0.710	VARIANCE	0.504
KURTOSIS	1.375	SKEWNESS	-0.487	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000		
VALID CASES	64	MISSING CASES	2		

VAR048

VACATION

CODE

1. ***** (19)

A

2. ***** (32)

B

3. ***** (37)

C

4. ***** (16)

D

5. ***** (4)

E

0. ***** (2)

(MISSING)

0. ***** I
1. ***** I
2. ***** I
3. ***** I
4. ***** I
5. ***** I
0. ***** I
F
R
E
Q
U
E
N
C
Y

MEAN 2.574
MODE 3.000
KURTOSIS -0.594
MINIMUM 1.000
VALID CASES 108
STD ERR 0.102
DEV 1.061
SKEWNESS 0.205
MAXIMUM 5.000
MISSING CASES 2
MEDIAN 2.581
VARIANCE 1.125
RANGE 4.000

VAR048 VACATION

CODE

1. ***** (7)

A

2. ***** (15)

B

3. ***** (32)

C

4. ***** (9)

D

0. ***** (3)

(MISSING)

1. I 10
2. I 20
3. I 30
4. I 40
0. I 50
FREQUENCY

MEAN	2.683	STD ERR	0.108	MEDIAN	2.797
MODE	3.000	STD DEV	0.858	VARIANCE	0.736
KURTOSIS	-0.418	SKWENESS	-0.421	RANGE	3.000
MINIMUM	1.000	MAXIMUM	4.000		
VALID CASES	63	MISSING CASES	3		

APPENDIX H

Combined Population Histograms

Consolidated responses of population A and B are presented in histogram format for the purpose of review and analysis. The histogram format is identical to that presented in Appendix G. Refer to that appendix for proper reading instructions of this appendix.

The Chi-square and "Student's" t Distribution statistical test were performed on data from this appendix. Tests appear in Appendix F.

VAR002	POSITION	HELD
--------	----------	------

CODE

1. *****
I *****
(74) *****

GROUP 1

2. I** (GROUP 2)

GROUP

3. I ***** (20)
I GROUP 3

GROUP 3

4. I ***** (8)
I GROUP 4

GROUP 4

5. I** I** (GROUP 1) 1)

GROUP

0.
(MISSING) I ***** (71)

(MISSING)

FREQUENCY

0 20 40 60 80 100

MEAN	1.667	STD ERR	0.106	MEDIAN	1.209
MODE	1.000	STD DEV	1.089	VARIANCE	1.186
KURTOSIS	-0.002	SKWNESS	1.223	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000		

MEAN

MEAN

MEAN

MEAN

MEAN

VALID CASES	105	MISSING CASES	71
-------------	-----	---------------	----

VAR004 AGE

```
CODE
33.  I *** ( 1)
      I I I
36.  I *** ( 1)
      I I I
37.  I *** ( 1)
      I I I
38.  I *** ( 1)
      I I I
39.  I ***** ( 4)
      I I I
40.  I ***** ( 2)
      I I I
41.  I ***** ( 3)
      I I I
42.  I *** ( 1)
      I I I
43.  I ***** ( 5)
      I I I
44.  I ***** ( 4)
      I I I
45.  I ***** ( 3)
      I I I
```


VAR006 HEIGHT

CODE	HEIGHT
60.	I ** (1)
61.	I ** (2)
62.	I ** (1)
63.	I ** (1)
64.	I *** (3)
66.	I *** (4)
67.	I ***** (10)
68.	I ***** (10)
69.	I ***** (12)
70.	I ***** (34)
71.	I ***** (32)

VAR007

WEIGHT

CODE

135. ***** (3)

138. ***** (1)

139. ***** (2)

140. ***** (2)

142. ***** (1)

143. ***** (1)

145. ***** (3)

149. ***** (1)

150. ***** (3)

154. ***** (1)

155. ***** (7)

156. I *** (1)
I
I
I
158. I ***** (3)
I
I
I
160. I ***** (14)
I
I
I
162. I *** (1)
I
I
I
163. I ***** (2)
I
I
I
165. I ***** (11)
I
I
I
167. I ***** (2)
I
I
I
168. I *** (1)
I
I
I
169. I *** (1)
I
I
I
170. I ***** (12)
I
I
I
173. I ***** (2)
I
I
I
174. I *** (1)
I
I
I

175. I ***** (14)
I
I
I
176. I ***** (1)
I
I
I
178. I ***** (2)
I
I
I
180. I ***** (13)
I
I
I
182. I ***** (2)
I
I
I
185. I ***** (9)
I
I
I
187. I ***** (1)
I
I
I
188. I ***** (1)
I
I
I
189. I ***** (1)
I
I
I
190. I ***** (14)
I
I
I
191. I ***** (1)
I
I
I
192. I ***** (1)
I
I
I

VAR009

TIME WITH PRESENT ORG

CODE

1.	I ***** (7) I I I
2.	I ***** (7) I I I
3.	I ***** (2) I I I
4.	I ***** (1) I I I
5.	I ***** (6) I I I
6.	I ***** (2) I I I
7.	I ***** (2) I I I
8.	I ***** (2) I I I
9.	I ***** (3) I I I
10.	I ***** (1) I I I
11.	I ***** (3) I I I

12. I
***** (7)
I
I
I
13. I
***** (3)
I
I
I
14. I
***** (3)
I
I
I
15. I
***** (8)
I
I
I
16. I
***** (5)
I
I
I
17. I
***** (5)
I
I
I
18. I
***** (1)
I
I
I
19. I
***** (4)
I
I
I
20. I
***** (8)
I
I
I
21. I
***** (3)
I
I
I
22. I
***** (9)
I
I
I
23. I
***** (3)
I
I
I


```
24. ***** ( 11)
I
I
I
25. ***** ( 10)
I
I
I
26. ***** ( 9)
I
I
I
27. ***** ( 9)
I
I
I
28. ***** ( 7)
I
I
I
29. ***** ( 2)
I
I
I
30. ***** ( 2)
I
I
I
32. ***** ( 3)
I
I
I
33. ***** ( 3)
I
I
I
34. ***** ( 2)
I
I
I
35. ***** ( 4)
I
I
I
36. ***** ( 3)
I
I
I
```


VAR010 LAST LEVEL EDUCATION

CODE

1. I ***** (9)
I HIGH SCHOOL DIPLOMA

2. (33)

3. (60)

(41) ****

5. *** (3)

6. ***** (30)

7. ***** (24)

8. (2)

0.1111

100
80
60
40
20
0
FREQUENCY

	MEAN	MODE	KURTOSIS	MINIMUM	STD ERR	STD DEV	SKEWNESS	MAXIMUM	MEDIAN	VARIANCE	RANGE
3	3.943	3.000	-1.163	1.000	0.145	1.923	0.454	8.000	3.258	3.698	7.000

VALID CASES	175	MISSING CASES	1
-------------	-----	---------------	---

VAR011 MAJOR

CODE

```
1. ***** ( 54)
   I HARD SCIENCE - ENGIN
   I
   I
   I
2. ***** ( 28)
   I HARD SCIENCE - OTHER
   I
   I
   I
3. ***** ( 41)
   I SOFT SCIENCE
   I
   I
   I
4. ***** ( 44)
   I BUSINESS
   I
   I
   I
5. ***** ( 1)
   I OVERLAPPING FIELDS
   I
   I
   I
6. ***** ( 2)
   I MISCELLANEOUS FIELDS
   I
   I
   I
7. ***** ( 1)
   I GT HIGH SCHOOL BUT L
   I
   I
   I
0. ***** ( 5)
   I (MISSING)
   I
   I
   I
FREQUENCY 20 40 60 80 100
```

MEAN	2.532	STD ERR	0.100	MEDIAN	2.585
MODE	1.000	STD DEV	1.303	VARIANCE	1.697
KURTOSIS	-0.487	SKEWNESS	0.352	RANGE	6.000
MINIMUM	1.000	MAXIMUM	7.000		
VALID CASES	171	MISSING CASES	5		

VAR141

NOS

CODE

1. ***** (54)

2. *****(49)

3. ***** (25)

4. (10)

5. (11)

6. (11)

0. (36)

(MISSING)

100
80
60
40
20
0
FREQUENCY

MEAN
MODE
KURTOSIS
MINIMUM

11:01
1:06
9808

11:01
1:06
9808

11:01
1:06
9808

STD ERR
STD DEV
SKEWNESS
MAXIMUM

STD ERR
STD DEV
SKEWNESS
MAXIMUM

STD ERR
STD DEV
SKEWNESS
MAXIMUM

STD ERR
STD DEV
SKEWNESS
MAXIMUM

**MEDIAN
VARIANCE
RANGE**

**MEDIAN
VARIANCE
RANGE**

**MEDIAN
VARIANCE
RANGE**

1.827
1.036
5.000

1.827
1.036
5.000

1.827
1.036
5.000

VALID CASES

MISSING CASES

VAR015 SPOUSES EDUCATION

CODE

1. I** I
NG SPOUSE

2. ¹ (LESS THAN 12 YEARS

3. I 12 YEARS (331

4. ***** (11)
***** I 13 YEARS

5. I 14 YEARS (28)

6. I ***** (14)
I ***** (15 YEARS

7. I 16 YEARS (51)

8. ***** (15)
***** 17 YEARS

9. I ***** 18 YEARS 91

0. ***** (8)
I ***** GREATER THAN 18 YEAR

(MISSING) 0. I***I (5)

100
80
60
40
20
0
FREQUENCY

MEAN	5.895
MODE	7.000
KURTOSIS	-0.832
MINIMUM	1.000

STD FPR	0.158
STD DEV	2.070
SKEWNESS	-0.026
MAXIMUM	10.000

	MEDIAN	VARIANCE	RANGE
6	321		
4	283		
9	000		

VALID CASES	171	MISSING CASES	5
-------------	-----	---------------	---

VAR017 LONGEST TIME ANY ORG

CODE

```
4.  I **** ( 1)
    I
    I
    I
5.  I **** ( 1)
    I
    I
    I
6.  I **** ( 1)
    I
    I
    I
8.  I **** ( 3)
    I ****
    I ****
    I ****
9.  I **** ( 6)
    I ****
    I ****
    I ****
10. I **** ( 1)
    I
    I
    I
11. I **** ( 3)
    I ****
    I ****
    I ****
12. I **** ( 4)
    I ****
    I ****
    I ****
13. I **** ( 2)
    I ****
    I ****
    I ****
15. I **** ( 10)
    I ****
    I ****
    I ****
16. I **** ( 6)
    I ****
    I ****
    I ****
```


VAR019 CHANGED RELIGION

CODE

1. I ***** (21)
I ***** YES

2. I ***** (153)

0. (MISSING) I ** (2)

0 40 80 120 160 200
FREQUENCY

MEAN	1.879	STD ERR	0.025	MEDIAN	1.931
MODE	2.000	STD DEV	0.327	VARIANCE	0.107
KURTOSIS	3.386	SKWENESS	-2.322	RANGE	1.000
MINIMUM	1.000	MAXIMUM	2.000		

	VALID CASES	174	MISSING CASES	2
--	-------------	-----	---------------	---

VAR026 MAKING IMP DECISIONS

CODE

1.

二

A

2.

3.

165

U

4.

11

١٠

•

44)

W

0.
(MISSING)

31

FREQUENCY

MEAN
MODE
KURTOSIS
MINIMUM

2201
••••
2009
31

STD ERR
STD DEV
SKEWNESS
MAXIMUM

4580
6420
0850
• • • •
0005

MEDIAN
VARIANCE
RANGE

2.204
0.714
4.000

VALID CASES

MISSING CASES

VAR028 WORK RELATED INFO

CODE

1. ****
I ****

(45) ****

A

2. (40) ****

88

3. (35)

5

4. (13)

C

5. (22) *****

U

0. *****(21)

(MISSING)

1
0
FREQUENCY

FREQUENCY

MEAN	2.529	STD ERR	0.110	MEDIAN	2.313
MODE	1.000	STD DEV	1.364	VARIANCE	1.861
KURTOSIS	-0.878	SKWENESS	0.537	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000		

2000

-0.878

1.000

VALID CASES	155	MISSING CASES	21
-------------	-----	---------------	----

VAR030 RELY ON FOR INITIAL INFO

CODE

1. *****(18)

2. (B) 21

3. (46)

4. (59) ** ** ** **

[illegible]

0.****(9)

0.
(MISSING)

100
80
60
40
20
FREQUENCY

MEAN	3.653
MODE	4.000
KURTOSIS	0.108
MINIMUM	1.000

STD ERR	0.091
STD DEV	1.193
SKEWNESS	-0.855
MAXIMUM	5.000

MEDIAN	3.822
VARIANCE	1.423
RANGE	4.000

VALID CASES	170	MISSING CASES	6
-------------	-----	---------------	---

VAR034	SALARY RANGE
1	10000
2	12000
3	14000
4	16000
5	18000
6	20000
7	22000
8	24000
9	26000
10	28000
11	30000
12	32000
13	34000
14	36000
15	38000
16	40000
17	42000
18	44000
19	46000
20	48000
21	50000
22	52000
23	54000
24	56000
25	58000
26	60000
27	62000
28	64000
29	66000
30	68000
31	70000
32	72000
33	74000
34	76000
35	78000
36	80000
37	82000
38	84000
39	86000
40	88000
41	90000
42	92000
43	94000
44	96000
45	98000
46	100000
47	102000
48	104000
49	106000
50	108000
51	110000
52	112000
53	114000
54	116000
55	118000
56	120000
57	122000
58	124000
59	126000
60	128000
61	130000
62	132000
63	134000
64	136000
65	138000
66	140000
67	142000
68	144000
69	146000
70	148000
71	150000
72	152000
73	154000
74	156000
75	158000
76	160000
77	162000
78	164000
79	166000
80	168000
81	170000
82	172000
83	174000
84	176000
85	178000
86	180000
87	182000
88	184000
89	186000
90	188000
91	190000
92	192000
93	194000
94	196000
95	198000
96	200000
97	202000
98	204000
99	206000
100	208000
101	210000
102	212000
103	214000
104	216000
105	218000
106	220000
107	222000
108	224000
109	226000
110	228000
111	230000
112	232000
113	234000
114	236000
115	238000
116	240000
117	242000
118	244000
119	246000
120	248000
121	250000
122	252000
123	254000
124	256000
125	258000
126	260000
127	262000
128	264000
129	266000
130	268000
131	270000
132	272000
133	274000
134	276000
135	278000
136	280000
137	282000
138	284000
139	286000
140	288000
141	290000
142	292000
143	294000
144	296000
145	298000
146	300000
147	302000
148	304000
149	306000
150	308000
15	

CODE	CHARACTER	FREQUENCY
0.	A	4
1.	B	4
2.	C	79
3.	D	8
4.	E	11
5.	F	18
6.	G	23
7.	H	21
8.	I	8
9.	J	1
10.	K	1
11.	L	1
12.	M	1
13.	N	1
14.	O	1
15.	P	1
16.	Q	1
17.	R	1
18.	S	1
19.	T	1
20.	U	1
21.	V	1
22.	W	1
23.	X	1
24.	Y	1
25.	Z	1
26.	[	1
27.	\	1
28.	]	1
29.	^	1
30.	_	1
31.	`	1
32.	{	1
33.	|	1
34.	}	1
35.	~	1
36.	!	1
37.	@	1
38.	#	1
39.	\$	1
40.	%	1
41.	&	1
42.	'	1
43.	(	1
44.	)	1
45.	*	1
46.	+	1
47.	=	1
48.	-	1
49.	_	1
50.	~	1
51.	^	1
52.	]	1
53.	\	1
54.	[	1
55.	`	1
56.	{	1
57.	|	1
58.	}	1
59.	~	1
60.	!	1
61.	@	1
62.	#	1
63.	\$	1
64.	%	1
65.	&	1
66.	'	1
67.	(	1
68.	)	1
69.	*	1
70.	+	1
71.	=	1
72.	-	1
73.	_	1
74.	~	1
75.	^	1
76.	]	1
77.	\	1
78.	[	1
79.	`	1
80.	{	1
81.	|	1
82.	}	1
83.	~	1
84.	!	1
85.	@	1
86.	#	1
87.	\$	1
88.	%	1
89.	&	1
90.	'	1
91.	(	1
92.	)	1
93.	*	1
94.	+	1
95.	=	1
96.	-	1
97.	_	1
98.	~	1
99.	^	1
100.	]	1

MEAN	STD ERR	MEDIAN
MODE	STD DEV	VARIANCE
KURTOSIS	SKEWNESS	RANGE
MINIMUM	MAXIMUM	
VALID CASES	MISSING CASES	
3.801	0.166	2.625
2.000	2.196	4.823
-1.237	0.422	8.000
0.0	8.000	
176	0	

VAR035 LESSER SALARY

CODE

1. ***** (98)

A

2. ***** (75)



0.*** (3)

(MISSING)

FREQUENCY

FREQUENCY

	MEAN	STD ERR	MEDIAN
MODE	1.434	0.038	1.383
KURTOSIS	1.000	0.497	0.247
MINIMUM	-1.934	0.268	1.000
MAXIMUM	1.000	2.000	
VALID CASES	173	MISSING CASES	3

VAR044

FUNCTION AT NEW LEVEL

CODE

1. ***** (18)

A

2. ***** (26)

B

3. ***** (35)

C

4. ***** (45)

D

5. ***** (26)

E

0: (MISSING)

***** (26)

0: ***** (50)
FREQUENCY

MEAN	3.233	STD ERR	0.103	MEDIAN	3.386
MODE	4.000	STD DEV	1.266	VARIANCE	1.603
KURTOSIS	-0.971	SKEWNESS	-0.285	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000		

VALID CASES	150	MISSING CASES	26
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VAR045 FAMILY RELATICSNSHIP

CODE

1. ***** (58)

A

2. ***** (33)

B

3. ***** (44)

C

4. ***** (12)

D

5. ***** (28)

E

0. ***** (1)

(MISSING)



MEAN	2.537	STD	EP	MEDIAN	
MODE	1.000	STD	DEV	VARIANCE	2.394
KURTOSIS	-1.009	SK	W	RANGE	2.020
MINIMUM	1.000	MAXIMUM			4.000
VALID CASES	175	MISSING CASES	1		

APPENDIX I

Population Historical Data Bank

Statistical data bank is contained in this appendix for both populations. It permits ready access to any potential user for expanded analysis. Populations are identified by the first integer of each line. The integer 1, corresponds with population A, and the integer 2, corresponds with population B. Each line of data can be inserted on a standard IBM card.

2102532731905223331144007032222	413532232243261	21133415343205030775
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21034827621552243311205012282	3142222134453514	54223221532400222475
2160268165524633121006042352	414432353719	31123133219722675
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240245269200517363114005021782	5134432355325111	24123333533417122775
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210463270149517313162005041752	514232545455618	1311435422223723575
210457268165527343122007042771	1214422124425515	221354441411211922475
210158270150536733112006013652	4132422255454719	52224422531504322075
210355274180526313113003032652	1154423444455514	52233433334525822875
240253273195514332204007021552	02145213231155516	22132411413303822575
210355270170528343144006022852	2135322254453618	24233423515423322775
230736270178412353122006101222	5114431553455212	22113141433525122775
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211163166195542312211007014262	1144212223353819	51121445452313130675
230550270170526313111003012652	11352122233124515	21223442432306422075
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210163269155540313121005033902	413423535321	111255243208722575
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210254271175516243120004021652 214452335 455718 222334 1412319922575
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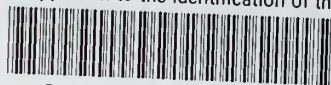
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